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ABSTRACT

This report presents the findings of a study in which the member nations of UNESCO were surveyed concerning their education research policies. Specifically, the survey focuses on how research priorities are decided upon, how research is organized, how the results of research are disseminated, and what strategies are employed to make use of research results. Organized into three parts, part 1 summarizes the main findings of the survey. Part 2 presents regional syntheses of the survey findings. Five syntheses are included: Educational research policies in Africa (E. Ayotunde Yoloye); Educational research policies in Asia and the Pacific (R. P. Singh); Educational policies in the Europe Region (Edmund King); Educational research and decision-making in Latin America and the Caribbean (Gonzalo Gutierrez); and Educational research policies and decision-making in the Arab States (Salman Abu-Ali). Part 3 presents the main recommendations of recent regional and international meetings of UNESCO member states that have concerned educational research. A 24-item bibliography and appendices that include the questionnaire sent to UNESCO member states also are included. (DB)

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A world survey

by Michel Debeauvais

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Preface

This study is based upon the global results of the International Survey on Educational Research Policies in Member States and their Links with Educational Decision-making Procedures, conducted during the Second Medium-term Plan (1984-89).

The survey was also a follow-up of the similar surveys conducted by different organizations (the Organisation for Economic Co-operation and Development (OECD), 1974; the Council of Europe, 1979; and the International Development Research Center, 1983). It was carried out in close co-operation with the World Council of Comparative Education Societies (WCCES). A considerable number of regional and international consultations and the data collection were carried out among specialists in educational research and various research bodies in the field of education in Member States in order to bring out this volume.

The main purpose of this survey was to present a synoptic review on the trends and developments in educational research policies in Member States in such areas as research priorities in education, the organization of educational research, the dissemination of research findings, and the application and use of research findings.

By providing research bodies and specialists in Member States with the information on these subjects, Unesco hopes to stimulate efforts aimed at reinforcing the links between research in education and educational planning and practice for the renovation and development of the educational process. By providing data and information on diversified systems, experiences, innovations and attempts to effectively link research and practice in education, Unesco also hopes to stimulate further regional and international exchange of information in the field.

We are very grateful to Professor Michel Debeauvais for the tremendous amount of effort and time spent on this task and, of course, to all the specialists and bodies in Member States whose contributions and participation in the survey made this study possible.

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Introduction

In 1984, as one of its programmes, Unesco launched a comparative study on 'National Educational Research Policies in Member States and their Links with Educational Decision-making Procedures', whose purpose was to gather information, by means of a questionnaire sent out to the National Commissions for Unesco, on: (a) how research priorities are decided; (b) how research is organized; (c) how the results of research are disseminated; and (d) what strategies are employed to make use of research results.

The national replies to the questionnaire were analysed in consolidated regional reports and these were studied at a number of meetings of experts in Europe (Garda, 1986), Africa (Ibadan, 1986) and Latin America (Lima and Rio, both in 1987). The present book sets out the main findings of this worldwide survey.

The programme was an exercise in co-operation between Unesco and the World Council of Comparative Education Societies (WCCES) which set up a working party to participate in the various stages of the survey. A meeting of consultants was held for the preparation of the questionnaire and case studies were carried out in seven countries to test it. After the survey itself had been carried out, the national replies were analysed on a regional basis by five experts in comparative studies: Salman Abu-Ali for the Arab States, Gonzalo Gutiérrez for Latin America and the Caribbean, Edmund King for the Europe Region, R. P. Singh for Asia and the Pacific, and Asuntoye Yoloye for the African Region. The World Council also played a part in organizing the regional meetings that studied the regional reports and the final consultative meeting held to discuss the conclusions to be reached from the programme.

One conclusion was the decision by the WCCES to go further with the comparative study by encouraging Comparative Education Societies to hold meetings and initiate studies on the subject in order to make a deeper analysis of three series of questions in each country's specific conditions: first, how to produce quantitative and qualitative figures for the national production of educational research enabling significant international comparisons to be drawn at both quantitative and qualitative levels and preparations to be made for the networking of information on educational research; secondly, how relations are organized between researchers and decision-makers as regards the financing of research and its orientation in accordance with the priorities of education policy and how research results are brought to the notice of decision-makers (in the political world and the educational management system) and used in educational policy decision-making; and thirdly, how teachers are informed of the results of research and how those results are used to improve teaching practice.

The WCCES hopes that these national studies carried out on the initiative of the Comparative Education Societies will provide a relevant basis for significant international comparisons and lead the way to in-depth exchanges of experience at the international level.

Several such meetings have already been organized - by the Indian Comparative Education Society (Delhi, April 1987) on the historical development of education research in India, by the Polish Education Society (Warsaw, November 1987) to study the part played by research in the preparation of the educational reform of the 1970s and the difficulties of its implementation, by the comparative education section of the German Society of Educational Science on 'Research in

Comparative Education and International Educational Policy' (Frankfurt, February 1989) and the French-speaking Comparative Education Society which gave over its annual conference to the study of three aspects of national educational research policies: evaluation of national policies, national inventories of research and the use of research by teachers (Sèvres, May 1989).

Other meetings are in preparation in the framework of the World Council's pluri-annual co-operative research programme with the object of encouraging the development of comparative education in a field of interest not only to all educational researchers but also to teachers and everyone involved in decisions on educational policy - particularly policy-makers and administrative personnel.

The international survey produced an exceptional volume of documentation on the situation in over seventy countries and the reports on the ten or so international meetings already held in this context are highly detailed. It will be readily understood that this general report can only present a very incomplete reflection of such a mass of information. It was physically impossible to publish all the documents *in toto* or even - in spite of their great interest - substantial excerpts from them. A selective bibliography of those that can be obtained from Unesco or WCCES is given at the end of this publication.

This study has no pretensions, therefore, of giving a full and complete picture. The criteria for the choices we had to make are those imposed by the context we were working in: the information was too varied for a general review covering the whole world and reporting every characteristic for every single country. Precedence was therefore given to those documents which seemed to us to cover the most widely differing experience of most significance for an international readership, particularly when the incidence of the problems discussed went beyond the national framework. These problems lie at the very heart of educational policy, because the predominating impression emanating from all these studies is that educational research is still underdeveloped in most countries and its results are not sufficiently broadcast nor utilized. In other words, although the Unesco programme has aroused considerable interest on the part of the national authorities it falls far short of reaching all its objectives. It is hoped that this report will help to sustain the interest of all the parties concerned in questions that are vital to education's very future and that ways will be found for the study of those questions to be continued with energy and vigour.

PART I

THE MAIN FINDINGS OF THE SURVEY

The results of the world survey on educational research policies and their links with educational policy and practice, some of which are presented in the chapters that follow, may be assessed from two different and complementary viewpoints: first, that of Unesco and its Member States and, second, that of comparative education.

As regards the Unesco objectives the survey has had immediate results. It has enabled an exceptionally large body of information to be gathered together: most of the National Commissions filled in the questionnaire sent to them in 1985 and over seventy countries contributed usable and often fully documented answers. The survey also prompted many expressions of interest on the part of the National Commissions for Unesco and national education ministers. The hope is that, as a result, many governments will be moved to develop educational research as part of education policy in general with a view to improving the dissemination of research results and ensuring that they are used in policy-making and educational practice.

The survey also showed that most countries have recently introduced measures to encourage the growth of the kind of research they consider likely to improve education policy-making and educational practice. Numerous research institutes have been set up during the last ten years, particularly in the Arab countries and in sub-Saharan Africa. An increasing number of countries are making the effort to draw up national inventories and to facilitate their researchers' access to other countries' data bases, particularly the EUDISED information system in Europe and the REDUC network in Latin America.

Unfortunately, these encouraging signs given in the replies have to be qualified because they reflect only a part of the truth. In other fields of educational development there is a wide gap between declared objectives and the actual situation. All the regional meetings underlined the disturbing situation of the educational research sector in most countries. In spite of all the declarations of intent, and aside from a number of isolated experiments, very few have taken concrete steps to develop their research potential in a purposeful and systematic fashion so that the priorities linked with their educational objectives may be given effect, research findings brought to the notice of their various users and the utilization of research results facilitated.

Thus the recent recognition of the potential importance of educational research as a way of improving education policies and practice has not so far been translated into programmes to match these objectives.

The countries of Eastern Europe are the only ones to have reported progress along these lines but even there the case-studies carried out in Hungary and Poland in 1985 (see Bibliography) point to gaps between the objectives and priorities established at central level and what has been done to implement them - the explanation being the large measure of independence of the research institutions. It would therefore be wildly optimistic to conclude that the programme launched by Unesco on this subject has completely attained all its objectives. The awareness to which the international survey has certainly contributed has yet to be converted into action programmes at both national and international level.

From the viewpoint of comparative education, the results of the survey constitute a valuable source of information for the identification of regional and world trends but the replies from the National Commissions and education ministers provide insufficient basic data for generalizations or conclusions because of their diversity, deficiencies and lack of comparability as pointed out in the regional reports and the consultants' meetings referred to in this study.

It may be useful here to recall that the object of comparative education, as a scientific discipline, is to make comparison as significant as possible by ensuring that the data are comparable, situating them in their national context and rendering each country's experience more communicable.

The contribution of comparative education to the exchange of experience between countries

As stated, the purpose of comparative education is to facilitate the exchange of experience by endeavouring to provide a systematic basis for comparison. There is probably no single method that would be accepted by all specialists in the discipline and no unanimous agreement on its theoretical principles - a feature shared, incidentally, by most social sciences. Nevertheless, whatever the methods used by different researchers their common aim is to give scientifically acceptable answers to three questions: What is the precise purpose of the comparison (definition of the subject to be studied)? How can the processes and functioning of the systems concerned be compared? What are the observable results?

A comparison of national education research policies will therefore cover as precise as possible a description of the elements that are to be compared including both the institutions and people involved in research policy, an analysis of the processes for formulating, deciding and implementing that policy and an evaluation of the results obtained.

According to the principles of systematic analysis, the interactions between the institutions and the actors on the educational research policy stage are no less important than the descriptive data as collected by questionnaire survey. That is why the regional meetings of experts made a methodical study of the relevance and reliability of the information contained in the answers to the questionnaire. The critical comments under this heading in the regional reports and those made at the consultation meetings should not be interpreted in a negative way: the research scientist has a duty to check the comparability of data and see them in their specific context before trying to interpret them.

International trends in educational research policies

The survey brought news of many examples of decisions taken to develop educational research, primarily by the creation of institutions at the national level. Two main types of body have been set up or consolidated in countries where research did not exist or was insufficient. The first relates to departments set up in education ministries to deal with research either as their main activity or in combination with other duties such as statistics, planning, and project preparation and implementation. The second relates to national educational research institutes as already existed in many countries. But the regional reports (particularly for Africa and the Arab countries) stress the fact that these bodies often have serious difficulties in effectively achieving the purposes laid down for them. What is more the relations they entertain with the universities are often described as unsatisfactory.

In other words, a significant comparison between these institutions needs to be more than just a description of the rules that govern them and the missions they are instructed to perform; it needs also to study their effectiveness based on information about their material, human and financial resources and about their research output and relations with other research institutions.

The role of the universities in the production of educational research and the training of research workers in this field is mentioned in most replies but the role varies widely from country to country. Three distinct situations may be identified.

First, there are those countries where most research is done in the universities; educational research is particularly highly developed where elementary teachers are trained within the universities, thus giving a broad institutional base (education faculty, teacher training departments or schools) to the units made responsible for both teacher training and educational research. Examples of such countries are the United States, Canada, Japan and the Republic of Korea.

Second, in the other countries where research is a major university function, educational research seems to be more restricted and more widely scattered over the various disciplinary units. This is typical of many European universities in countries where elementary teacher training is still given in non-university institutions and where the principal educational activity of university departments is specialization with research in view.

Third, for most of the developing countries, the role of the universities in research is still a minor one because priority has been given to management training. Post-graduate courses are a recent and embryonic introduction. Some countries, like Brazil, India, Nigeria and Egypt, are certainly more advanced than others and have already created a research infrastructure capable of a substantial educational research output.

But the regional reports highlight the negative consequences of the financial restraint caused by the crisis. This is a subject deserving the international organizations' urgent attention particularly in view of the strongly stressed need for education systems to be adapted to each country's specific conditions. Clearly these appropriate reforms cannot be brought about by simply importing foreign models without any research being conducted on the spot by national researchers - and yet strengthening the educational research capability of the developing countries' universities does not, to our knowledge, figure on any specific programme of any international organization. While the World Bank's major policy document on education in sub-Saharan Africa (World Bank Policy Study, 1988), for example, does indeed dwell on the need to formulate and implement education reforms and to expand research and researcher training capacities, the only sectors it refers to are agriculture and health (including the related natural sciences), management (including the related social sciences) and engineering sciences.

Further doubts about the priority that national authorities effectively give to educational research are prompted on reading recent official statements of educational policy objectives. In India, for example, the New Educational Policy finally decided upon in 1986, after twenty months of intensive consultation, makes no mention of educational research in any of its many preparatory documents. In Japan, the National Council for Educational Reform refers only indirectly to educational research in the 'twenty-four points' and 'six priorities' set out in its report to the education minister in April 1987: 'promotion of basic and creative scientific research and the development of educational and research projects initiated by private higher education institutions should be encouraged. . . . Research and development of new educational systems using information technologies should be encouraged'. In France, the long-term forecasting study made in 1987 by Jacques Lesourne at the request of the French Education Minister ('Education et Société; les Défis de l'An 2000') makes no mention of educational research and neither do the two reports by the Collège de France to the President of the Republic on the changes necessary for the modernization of the education system and the reform of school curricula.

These absences - and many more similar cases could be quoted - are not due to a lack of effort on the part of the researchers who take every possible opportunity to draw the attention of decision-makers and public opinion to the inadequacy of research activity. In Africa, where the situation is even worse than in the other regions, the conference of education ministers held in Harare in 1982 echoed this concern of the researchers in its recommendation that recourse be had 'to the expert knowledge of universities and research institutes and, as appropriate, non-governmental organizations to undertake the necessary studies and research to supply the data needed for planning educational . . . activities'.

More recently a symposium of African higher-education experts (Dakar, May 1987) stressed the need to increase the effectiveness of the support that higher education can provide for educational reforms by strengthening and re-orienting its educational training and research activities. The special programme for improving higher education in Africa drawn up in the wake of that meeting recommended

> strengthening the scientific and technological potential of a number of higher education institutions so that they may be in a position to act as centres of excellence especially as regards training aimed at education for development, the production of teaching materials and the development of interdisciplinary training and research activities.

However, official recognition of the importance of educational research will not suffice to ensure that it is given priority in practice. Comparative analysis of the official texts needs to be accompanied by a study of the measures actually taken to achieve the objectives and of the effectiveness of those measures. The French example illustrates the gap there may be between declarations of intent and effective implementation. Efforts by the government in that country to define a national educational research policy in 1983 (the Carraz Report) and again in 1985 (Chevènement's national colloquium) have not been followed by a single concrete measure to put their recommendations, unanimous though they were, into effect.

Another question arises in the case of those countries where educational research is particularly highly developed but where there is no national policy for such research. It is well known that the United States is by far the world's largest producer of educational research: the ERIC bibliographical data base enters research abstracts at the rate of about a 1,000 a month (the total stored is now over 300,000) and every month the *Current Index of Journals on Education* (*CIJE*) records the details of 1500 articles appearing in 850 periodicals. And yet, as Harold Noah points out in the case-study he produced for this programme, neither the researchers themselves nor the rest of society would be prepared to accept the idea that a central authority should plan or even co-ordinate research. In the United Kingdom, as Edmund King comments in the report on Europe, neither the research fraternity nor the authorities see the need for planning educational research. The question, therefore, is: Does the development of educational research necessarily have to be planned?

Another point in the United States is that the social environment there is favourable to the development of experimental research in the education sector. Along with the decentralization of the education system in that country there is considerable diversification in the sources of finance and a multiplicity of contracts for applied research (and of full-time research jobs) with emphasis on the various forms of evaluation: evaluation of students' cognitive results, courses, school and college management, etc. This 'social demand' encourages the emergence of new research specializations: curricula, educational administration and, more recently, new educational technologies and the analysis of educational policies. When the number of specialists trained and given jobs (in public or private establishments) is sufficient they set up professional associations, for example, the American Association for Educational Research which has fifteen member associations and 15,000 individual members. These scientific associations constitute an essential feature of the scientific milieu which can, when it reaches the critical size, provide a favourable environment for the development of research and evaluation by peers.

These contradictory facts challenge the implicit logic underlying the Unesco programme whose aim is the formulation of national educational research policies by each country and which may be summarized in the following simplified terms: in view of the priority that most countries give to the development of education it is desirable that educational research be similarly developed; if that research is to be oriented in line with the priority requirements of its users (decision-makers and teachers), its production and distribution have to be co-ordinated and measures taken to ensure it is put to most effective use. This logic has been recognized and applied (partly at least) in other fields of development, e.g. science policy and educational planning. The international community now regards national scientific research policies as necessary components of economic and social development policies. Is the education sector an exceptional case?

It has certainly to be admitted that educational research has specific features - in its production, dissemination and utilization - that set it apart from industrial research and even research in other sectors of the social sciences. The follow-on from that recognition, however, should be to identify these specific features rather than to reject the concept of a policy for educational research as irrelevant. Even in the United States it could be said that the main functions of a national policy, though not carried out by a centralized decision-making system, are performed in other ways: large-scale production of research, the scientific sector's evaluation of that research, a social demand (with the ability to pay) for applied research and research and development, and so on. This could be an argument for having comparisons of national experience relate to 'functions to be performed' in the pursuit of research policy objectives rather than to research institutions and institutional co-ordination procedures.

The regional reports frequently refer to the importance of the social context, which is often unfavourable to research and more still to educational research, as a major factor that may work against the development and utilization of educational research.

In the economic goods and services production sectors, the current model of research policy would seem to fit the following simplified description. If it wishes to develop, a sector (or business) must not only earmark a large share of its income for investment (at least 10 per cent), it must also set some aside (at least 1 per cent) for research to ensure its technological progress and secure its future (innovation, adaptation, competitiveness). This model distinguishes between basic research, applied research and research and development. The role of national research policy in this model is to ensure that the resources allocated to research are sufficient and efficiently used and that the three types of research are balanced in their relative importance. This model, of wide application in industry, has been qualified as 'linear' by those who find it inadequate in the educational field.

Alternatives have been proposed by various authors (e.g. Husen, 1984; Nisbet, 1980, 1985). Here reference will only be made to those described in two Unesco publications, one by M. Huberman (*Understanding Change in Education: An Introduction*, Unesco/IBE, 1972) and the other by the International Budapest Colloquium (1980). These models are the 'problem-solving model' which argues that research should be directed at solving the problems posed by the socio-economic environment and gives the main role to the decision-maker who determines research requirements and points research in the direction he considers best, the 'general enlightenment model' in which the accent is on the production of new knowledge by research scientists and its gradual dissemination in society and the 'social interaction model' which seems best fitted to take into account the multiplicity of the institutions involved and their complex interrelations. This last model is also able to identify measures that are likely to influence those interactions.

The application of systematic analysis procedures to the decision-making system constituted by national research policy could be a suitable framework for case studies. These could be carried out in parallel in several countries as part of a comparative study. A jointly defined conceptual framework would be used to compare policy objectives in several countries, the human and financial resources available, the national strategies for making use of those resources, the results obtained and the system used for their evaluation.

An ambitious project, this, but it could be done in stages as the resources of the national teams prepared to take part in a co-operative programme on this subject permit. A study of the findings of the survey at the consultation meetings and in the colloquia organized thereafter on the initiative of the comparative education societies has brought a number of points to the fore that should be the first to be discussed and investigated because they are essential requisites before a national policy can be formulated. They are as follows: (a) a definition of educational research or, more precisely, a classification of the various forms of research, broad and diversified enough to be used in the various countries and to allow significant comparisons; (b) national inventories of educational research; and (c) social indicators capable of providing comparable measurements of educational research output. The following pointers do not emanate directly from the Unesco international survey but are prompted by the insufficiencies in basic information that the survey showed there to be.

The comparative definition of educational research

There will be no epistemological discussion at this point on the scientific nature of educational research. What is of concern to research policy is as precise a definition as possible of all work that may be regarded as coming within the field of research. This is a subject of controversy not only between among researchers themselves but also between researchers and teachers/educationists. What is more, conceptions differ with the different countries or at least in the different cultural and linguistic areas. In several countries (the Portuguese-, French- and Spanish-speaking countries) the question of the identity of the education sciences and their scientific character is a major issue in the debates and writings of the specialists. Another controversy between researchers and teachers, especially those who regard themselves as innovators, is that the teachers contrast knowledge based on practice with merely 'theoretical' knowledge and claim the 'right to research' for teachers while asserting the scientific legitimacy of their 'research approach'. Such disagreements are inevitable, like those between researchers and 'decision-makers', because they are bound up with differences in social roles. The reports on the regional meetings highlighted them and spelt out the resulting difficulties. Clearly, educational research policy in each country has to take account of the differing points of view of the principal groups concerned and not ignore, or give preference to, any of them. Researchers, decision-makers and teachers have three different roles, each with its own specificity and legitimacy. One essential goal of research policy is to link the three strategies together with a common aim in view, namely to improve the education system. To go beyond the bare statement of these differences, it will be necessary to investigate these difficulties in the specific context of the individual countries and to analyse positive national experience in countries that have been able to organize constructive dialogue between the different partners.

The regional meetings also looked at the different conceptions of educational research in the different countries. A comparative study would be useful so that these differences could be taken into account. This could be done by constructing a classification that would not be normative and pre-arranged but would be based on an analysis of the content of the repertoires of national research activity. The analysis could relate not only to the subjects but also the types of research. The restrictive definitions used by certain data banks (ERIC, EUDISED) exclude research that is not the result of an investigation or fails to comply with the norms of experimental research. In some countries, conceptions of research range far wider. All need to have their place in a typology that would have to be drawn up by international agreement.

Two questions would seem to need to be considered first. One is the need to draw a clear boundary between research and innovation, which are often dealt with in combination because of their reciprocal relations and common objective: to improve education. However, this part-analogy becomes a source of confusion when analytical and operational classifications are necessary. Though it could be agreed that all production of knowledge may be defined as a result of research, a boundary has to be drawn between the field of action (in this case education) and that of scientific knowledge, even in its broadest sense. The other is that 'action research' and its various forms ('participative research' and 'intervention research') and ethnographic research are currently developing in many countries and arousing mounting interest both among educational researchers and innovative teachers. They are causing debate sometimes between researchers themselves and sometimes between researchers and teachers, in particular on the scientific validity of these forms of research which do not comply with the criteria of reliability, repeatability, form of proof, etc., which are found in experimental methodology. These discussions could be enlightened by comparative studies based on an analysis of the written presentations of the results of such research rather than on the 'theory/practice' or 'abstract knowledge/practical knowhow' argument that so often predominates. Indicators of relevance to educational research

The comparison of national experience in educational research may also be approached by the use of indicators enabling characteristic magnitudes to be compared, for example, human and financial resources employed, volume of research output, etc. This would be following in the footsteps of the comparative work done since the 1960s in the science policy field which began in this way. Recently there have been signs of greater interest in the development of educational indicators on the part of such international organizations as the OECD, which launched a programme on social indicators related to education in 1988, the World Bank, with its computerized data base on economic and social indicators, and Unesco, which is contemplating the issue of a periodical World Education Report. But there would no way of introducing research indicators on a comparative basis unless the necessary effort were forthcoming at the international level.

The lack of precision and figures in the replies to the Unesco questionnaire certainly shows that most countries do not yet have meaningful statistics on the financial and human resources employed in educational research. Before collecting these data and building up indicators the first need is to standardize the relevant concepts. The definition of researcher, for example, will need to be agreed (Does it cover everyone involved in a research project? What are technical and administrative personnel to be classified as? And so on). How should the time spent by teaching staff on research activities be reckoned so as to express human resources in full-time equivalent? For example, as one component of research expenditure it will be necessary to evaluate the amount of time - often very large and rarely accounted for - involved in the time-table adjustments that teachers involved in research are allowed because these represent a 'loss of teaching hours' which, like 'loss of earnings', comes under the heading of what economists call 'opportunity costs'. In spite of these difficulties it is possible to find technical solutions for the international standardization of concepts, definitions and measurements as the work done by Unesco on the standardization of studies on the effectiveness of new methods of education for purposes of comparison shows.

It will also be necessary to supplement the data on resources put into research by indicators of results. As a first stage in the analysis, effort could be concentrated on inventories of research and the networking of such inventories. The North American ERIC information system (RIE for research and CIJE for abstracts of articles) is a precedent pointing the way for other countries and internationally, particularly since technical progress in microcomputers already allows bibliographical data bases to be set up and interconnected at low cost. Unesco is already distributing software - Micro-ISIS - that can be used to initiate an international network of bibliographical information.

It would be wrong, however, to underestimate the difficulties to be overcome in making practical use of these technical possibilities. It was in 1975 that the Council of Europe began with its EUDISED data base on recent and current research in Member States and the EURYDICE data system designed to improve the distribution of information on the development of education, but in spite of the considerable resources applied and the network of correspondents in each of the countries involved results so far are disappointing. The reason, apart from the difficulty of tracking down relevant research or information, would seem to be that insufficient effort is being made to associate researchers with the work of the computerized documentation specialists. The job of comparative education specialists is to study differences in national vocabularies, and to analyse international conceptual variations and their significance, by viewing them in the social and historical context of each country. They, therefore, could make their contribution to a study of such questions as the comparability and relevance of the data to be collected and distributed over the international networks in which all concerned would work together. The experience of the Latin-American REDUC network (referred to in the regional report by G. Gutiérrez) seems interesting from this standpoint because teams of researchers were involved in its design and implementation.

These questions of classification, inventories and indicators may appear to be confined to the purely technical aspects and thus somewhat remote from the objectives of the Unesco programme which relate to broader problems of research policy and the use of research results to improve educational policies and practice. Admittedly the tasks involved are of a preliminary nature but they are just as essential now as, to take some recent examples, the preliminary stages of educational planning, science policy and new educational technologies were in their time.

There is no need, however, to wait for this initial work to be done before undertaking the study of relations between researchers, decision-makers and teachers. It was not possible for the replies to the questionnaire to deal with such complex problems and the meetings of experts were mainly concerned with exchanges of experience in terms of the difficulties encountered in the national contexts. The friction between decision-makers and researchers has been analysed in several studies, including those by T. Husen and M. Cogan in 1984, and J. Nisbet and P. Broadfoot in 1985, who tried to list decision-makers' criticisms of educational research on the basis of the content of literature on the subject and interviews with decision-makers. Preliminary studies have also been produced in other countries, for example, those by Kozma (1984) and Kozakiewicz (1984 and 1989) for Hungary, Yoloye (1984 and 1986) for sub-Saharan Africa and Gutiérrez and the Lima Colloquium (1987) for Latin America. But the question of the difficulties encountered in improving relations between educational research and decision-making needs to be investigated, possibly by means of case studies made in parallel in several countries in order to weigh the direct and indirect influence of research on decisions relating to major reforms and innovation, and also to consider and compare the ex-post evaluations of reforms and innovations on an international basis.

The question of the use of research by teachers could be examined in the same spirit. Though the various difficulties of communication have often been discussed and studied, interesting results could well be obtained by case-studies of positive and significant experiments particularly if these case-studies are run in parallel in several countries in co-operation with national research teams. The work by Huberman and Miles on a set of educational innovations, analysed by the strictest possible qualitative methods and using a predictive approach, shows the kind of results that comparative research of this type may be expected to yield.

In the prospect suggested here of a continuation of the programme on educational research policies, the results presented in the following chapters may be regarded as a useful step on the basis of which it has been possible to define avenues for further work.

PART II

THE REGIONAL SYNTHESES

Education research policies in Africa

E. Ayotunde Yoloye

Questionnaires were sent to forty-five Member States in Africa; seventeen replied (38.6 per cent). One other country, Malawi, was included in the analysis though it did not respond to the questionnaire; relevant information on research policies in the country was obtained from a research bulletin published by the co-ordinating committee on educational research in the Ministry of Education and Culture. The countries analysed, 40.9 per cent of those to which the questionnaire was sent, are Benin, Burkina, Burundi, Cameroon, Congo, Chad, the Congo, Côte d'Ivoire, Guinea-Bissau, Equatorial Guinea, Kenya, Madagascar, Malawi, Mali, Nigeria, Senegal, Seychelles and Zaire.

Regional consultation

A preliminary analysis and synthesis, prepared by the author in January 1987, was discussed at a regional consultation attended by twenty educational research writers and administrators of research institutions at the University of Ibadan, Nigeria, from 16 to 18 March 1987, one of several regional and subregional consultations to analyse the findings of the international survey carried out during 1985/86 on educational research policies in Member States and how they are co-ordinated with educational decision-making and practice. The objectives of the consultation were to contribute to the finalization of the synthesis of the results of the survey from Africa and to make suggestions to Member States in the region and Unesco on how to achieve better co-ordination between educational research and educational policy, planning and practice. This chapter incorporates the various contributions from participants at the consultation with the preliminary synthesis earlier prepared by the author.

Comments on the survey instrument and technique

The participants found the broad definition of educational research given in the questionnaire acceptable. Research about research, such as the present survey, should also be recognized as an important aspect of educational research. Participants thought it would have been useful to have responses to the same questionnaire from two or three different sources such as the Ministry of Education, university and private institutions in each country to provide more comprehensive coverage.

The questionnaire was not considered sufficiently clear on how priorities should be stated. Consequently, responses were expressed in rather broad terms. It is important to know who is identifying priorities, in what institution, and how. Priorities may be decided at the national or institutional level, and on the basis of scientific or pragmatic criteria.

It is hoped that special attention will be paid in the future to three issues, the linkage between research and policy, general constraints to research and the influence of donor agencies in research policy formulation, especially in developing countries.

This questionnaire survey is meant to give a more or less overall view of the status of educational research policies in sub-Saharan Africa. The extent to which this objective can be achieved is inevitably limited by two factors: the representativeness of the responses of the total population of countries, and the completeness of the information provided by the respondents.

Representativeness

Of the eighteen countries covered, five are English-speaking, eleven are French-speaking and two are Portuguese-speaking.

Differences in colonial, linguistic and educational backgrounds not withstanding, the countries have much in common. The fact of colonization is itself a common experience. More than this however, since the coming of national sovereignty to many of the countries during the 1960s, several events and organizations have brought all the countries together in terms of educational targets, policy and practice. Prominent among such events are the periodic conferences of the African Ministers of Education (MINEDAF) sponsored by Unesco, the United Nations Economic Commission for Africa (ECA) and the African governments. The recommendations and set targets of such conferences have over the years provided a more or less uniform yardstick for assessing the progress of educational development from one country to another. Consequently, educational policies and practices within each country must be seen in the context of all-African strategies and policies for educational development.

In a number of the countries, a particular individual was given the responsibility of responding to the questionnaire; in others the responses seem to be the work of a consortium.

Many of the questionnaires were completed by officials or agencies of the Ministry of Education. There is consequently a tendency to give fuller information concerning government agencies than, say, universities and autonomous agencies. Thus in Nigeria where the respondent was from a government parastatal, considerable information about research policies and practices in universities are left out. In Kenya, on the other hand, the respondent was from Kenyatta University, and he gave considerable attention to what goes on in the universities, with possibly less complete information about government agencies. Irrespective of who the actual respondents are, however, there is also a serious problem due to the low level of efficiency in information storage and retrieval in African countries which means that even the most able respondents may have been seriously handicapped in retrieving relevant information from records.

Qualitative growth

The first concern in African countries after independence was quantitative growth. There was tremendous need to train educated personnel to man the various new facets of development. In particular it was necessary to train high level manpower quickly to replace the outgoing colonial administrators, teachers and technical personnel.

By the time of the Nairobi conference (1968), however, some disillusionment with quantitative expansion began to set in, due particularly to rising unemployment among educated youths and the drift from rural to urban areas. Greater attention then began to be paid to the question of quality and relevance in education. This shift in emphasis had great significance for research and research policies because the search for relevance demanded basic research into African cultural heritage, environment, and child development, and such issues as appropriate technology and industrialization. Thus, concern for educational research emerged comparatively recently.

The formulation of research policies and, setting up of organizational structures for the conduct, dissemination and utilization of research is very much in its infancy.

In spite of the scantiness of research, there are indications of qualitative growth in education. In terms of inputs, teachers' level of qualification has risen, curriculum development centres have been created in many countries and these have produced new and more relevant curricula for the schools, and the quality of student intake at various levels of education has improved.

In terms of processes there have been various efforts to improve the quality of instruction through inquiry-and-activity approaches and to improve assessment procedures through such measures as the introduction of continuous assessment

There is evidence that the economic difficulties which African countries have experienced during the 1980s have led to some loss of ground in their educational advancement. School enrolment ratios are beginning to decline; investment in education is falling (it dropped from 5.5 per cent of gross national product in 1980 to 4.3 per cent in 1983); unemployment of school-leavers is increasing and average cognitive achievement of students is falling.

The development of higher education

Quantitative growth in higher education has been particularly high, with phenomenal growth in terms of enrolment as well as numbers of universities. In 1962, at the time of the Tananarive conference, there were thirty-two universities in twenty-three African countries. By 1980 the number of universities had increased to sixty-eight in thirty-five countries.

The first concerns of the universities and other tertiary-level institutions was the training of high-level manpower to fill administrative, teaching and technical positions vacated by the colonial powers and created by the new demands of independence. For this reason, there has been tremendous expansion in course offerings in the universities. Concern for the role of higher education in the generation of new knowledge through research developed more slowly. The creation of a research climate and the building of research capacity in African countries has therefore depended on the rate of transition in the role of universities from the training of job-oriented manpower to the generation of knowledge.

One of the earliest areas of research to emerge was that concerned with the identification and preservation of the African cultural heritage. Institutes of African Studies sprung up and departments of history developed. Strong schools of African history with emphasis on oral tradition emerged in various parts of Africa, such as the Universities of Ibadan and Ahmadu Bello in Nigeria and Dar es Salaam in the United Republic of Tanzania.

Centres for research based on oral tradition also emerged, including the Centre for Linguistic and Historical Studies based on the Oral Tradition (CELHTO) in Niamey, the centre for Study and Documentation of Oral Tradition and Applied Linguistics (CERDOTOLA) in Yaoundé and the East African Centre for Research on Oral Tradition and African National Languages (EACROTANAL) in Zanzibar.

In the field of education, top priority has been given to reforming in the education system to make it more relevant to the demands of independence. There has consequently been an emphasis on innovative curriculum projects. Special agencies which may be given the general term of curriculum development centres have emerged as the foci of action research in education. Even countries such as Nigeria which set up such organizations under the title 'Educational Research Council' have tended to concentrate on curriculum development and consequently only such aspects of research as relate to curriculum reform.

Because of their traditions of research, universities have shown greater diversification in the range of research topics, but these have seldom been harnessed to the problems of development which are the greatest concerns of governments. A communication gap often exists between university research working and government policy-makers. If an effective link between research and policy is ever going to exist, special attention must be paid to reducing this communication gap.

The research environment embraces the research climate, individual research skills, structuring and institutionalization of research skills, and the social, political and cultural context in which research is taking place. While there are similarities in research climates and research capacity from one country to another, significant differences are also created by such factors as political stability, geographical climate, political ideologies and the state of the economy.

Research manpower

Universities, which are the main institutions for the training of research manpower, are of relatively recent origin in Africa. Higher degree research programmes did not effectively take off in most of the universities until the 1970s. The demands of teaching on the staff of the various universities also limits tremendously the time available for research. Consequently, research manpower in African countries is in short supply.

Financial resources

In spite of the fact that in the post-independence era many African countries invested as much as 25 to 40 per cent of their national budgets in education, education still suffered from inadequate funds. In the last decade, the economies of these countries have shown such deterioration that the percentage of the budget assigned to education has progressively decreased. Many countries have re-introduced fees in primary schools. The amounts put into student welfare (subsidized meals, hostel accommodation, scholarships and bursaries) have been reduced drastically or in some cases eliminated.

In such situations of financial stringency, it is understandable that many countries cannot assign educational research very high priority. Even when funds are allocated for research, when the need arises for a cut in overall budget, the allocation for research is inevitably among the first to go.

Research infrastructure

Research infrastructure concerns such things as: (a) availability of means for disseminating research findings; (b) fundamental data bases such as educational statistics and demographic data; and (c) libraries, data processing equipment and institutionalized research. Indications are that such infrastructure is comparatively scarce in many African countries.

A research tradition relates to a general attitude and practice of relying on research data for decision making and placing a high premium on research productivity. Most African countries have yet to develop a research tradition. Policy-makers in education are generally in a hurry to see results and are usually not disposed to wait for the lengthy processes of research to provide valid information for decision-making, which lowers the morale of research workers and reduces the link between research and policy-making. Efforts are being made in a number of countries to promote research, but the emergence of a research tradition is still some way off.

While some individual countries have attempted to formulate research policies, there have also been some regional attempts to formulate research policies for the entire region. Thus for example the report of the Fifth Regional Conference of Ministers of Education and those Responsible for Economic Planning in African Member States (MINEDAF V), held in Harare, 1982, suggests the following priorities for action in educational research:

The highest priority should be given to research that will ensure the success of educational reforms at planning as well as implementation stages.

Such research should be institutionalized.

An important place should be given to the development of teaching research methodologies.

Considerable research should be directed at defining the content, curricula and methodology of various school subjects including languages, mathematics, science, social studies, cultural education, physical and health education.

Priority should be given to research in the field of educational planning, management and supervision.

A number of other conferences have also tried to formulate policies on a regional basis. One such conference was the Unesco-sponsored Regional Seminar on the Utilization of Research Findings to enhance the Educational Process (Freetown, 1985) which made twenty-three recommendations.

Organization administration of educational research

1. While it was recognized by the seminar that each country has to organise its educational research structures on a way that best promotes efficiency in its national system the seminar however recommends that a thorough process of harmonization of educational research structures be undertaken in *each country* to reduce research effort fragmentation to its barest minimum.
2. While recognizing the increasing financial burden which nations have to bear on Education, the seminar sees research as an integral part of all educational development programmes and therefore recommends to *all countries* to include in their national budgets substantial provisions for educational research.
3. Since educational development is a prime mover of overall socio-economic development the seminar urges *all nations* to give prominent and specific positions to educational research and its funding in all national policy documents particularly those that deal with education.
4. Research has to be directed at concrete problem solving. So external funding agencies should always ensure that the projects they fund are those closely related to problems of educational development in African countries.

Raising the level of data consciousness

5. Since research in any meaningful sense involves data collection and in view of the fact that basic data is hard to come by in most African communities, the seminar urges *all countries* to evolve and implement appropriate procedures and plans for raising the level of data consciousness among its populations.
6. Since researching is a way of behaviour which dwells on the spirit of enquiry, *African nations* should endeavour to build in the spirit of enquiry in their populations as a means of inculcating the research habit and so raising the level of awareness for data collection, generation and use.

Training of Researchers

7. Communication has been a major problem of data collection in Africa. *Training of researchers* should therefore endeavour to emphasize appropriate methods of posing questions and seeking answers in their training programmes.
8. Since researching like education itself, is a continuous process, researches initial exposure should always be followed by appropriate and regular on-the-job training.
9. Communication should be seen as a goal of research. Therefore the training of researchers should include adequate exposure to (and practice in) communication techniques.

The conduct of educational research

10. Since research is meant for consumption by a variety of audience, the conduct of research should ensure that techniques (and their level of sophistication) are adapted to the peculiarities of each locality.
11. Subjects of educational research should be regarded as real participants in the process, appropriate incentives (not necessarily financial) should be worked out in every setting to ensure the full and willing participation of individuals and communities in research projects.
12. Adequate facilities for the conduct of serious research will remain a problem in Africa for some time. Researchers should therefore intensify their efforts at *improvising* as much as possible.
13. As a means of enhancing research utilization, project proposals should, as much as possible, embody detailed strategies for implementation and dissemination.

Interaction between researchers and research users

14. Since research is aimed at improving what already exists, participants in educational research projects (schools, teachers, communities, parents, etc.) should be provided adequate feedback in the form of ways in which the research results can be used by them for improving their practice.
15. Since research should seek solutions to problems which actually exist researchers should endeavour to make their projects relevant to the socio-educational needs of their various environment.
16. Research policy-making, and policy-implementation are activities that should normally go hand in hand to enhance the educational process. Researchers should therefore work hard at evolving appropriate methods of involving policy makers in all facets of their work.
17. At the same time, professional researchers should become active team members of all educational reform and development process, to ensure that the research spirit pervades all national efforts to seek solutions to educational problems.

Communication and collaboration in educational research

18. As a means of narrowing the communication gap, which has always existed between research and practice, all research efforts should involve practitioners and users right from the onset.
19. Since it is highly desirable that every researcher should be exposed to the work of his peers. Every *nation* should, as a matter of top priority, establish a *register of researchers.*
20. Also as an important means of enhancing cooperation and communication in matters concerning educational research every country should consider the establishment of *educational documentation centres* as a priority area.
21. Educational research awareness gatherings should become a regular feature of the activity of researchers within each *country*, as a means of enhancing communication and regular exposure to new techniques of research as well as to contemporary research findings.
22. Inter-project visits and other forms of regional collaboration in matters of Education are provided by BREDA (NEIDA). Greater efforts should be made by African researchers to use these facilities through their national centres.
23. In addition, Unesco (NEIDA'S) information bulletin should include sections specifically devoted to research news.

The African Curriculum Organization (ACO) organized a research conference in conjunction with a consortium of scholars from the Federal Republic of Germany interested in education research in developing countries (Mauritius, 1980), which reflected on the entire philosophy and practice of educational research and identified five areas for in-depth study: (a) alternative teaching methods; (b) learners and learning; (c) centralized and decentralized systems of education; (d) education and productive work; (e) and paradigms of educational research. Other efforts at promoting educational research at regional level have come from such Unesco-sponsored projects as the Namutamba Pilot Project in Uganda, the Midwest (Bendel) State Primary Science Project in Nigeria, the Bunumbu Project in Sierra Leone and the Kwamsisi Project in the United Republic of Tanzania.

External inputs

A considerable boost to educational research in Africa has come from donor agencies such as the International Bank for Reconstruction and Development (IBRD-the World Bank), the Carnegie Corporation, the Ford Foundation, etc. A considerable amount of research policy in Africa has been decided by consortiums of donor agencies such as the Bellagio group. In a sense therefore some research policies have been forced on African countries through the financial clout of donor agencies.

One of the dilemmas that must be solved in the future is the establishment of an equitable balance between policies and priorities established by African countries and those established by donor agencies. There are at least two possible dangers in external funding of research: (a) the donor agency may dominate the research policy and (b) vital information about the country may be taken away to foreign countries, thus making the countries more vulnerable to political, economic and even educational exploitation. Because of these dangers, some countries, for example Nigeria and Kenya, restrict the utilization of donor agency funds for research and require that any externally funded research proposals be thoroughly screened before approval.

A brief overview of educational research efforts in Africa

Within their numerous limitations, there is evidence that considerable research, within the definition of this survey, has gone on in African countries. The mechanisms of setting up special commissions, seminars or study groups for the purpose of educational reforms involve by their very nature research. Members of such commissions usually include reputable scholars who are used to basing judgments on research findings. The Ashby Commission in 1960 in Nigeria, for example, based its recommendations on an intensive study by Professor Harbinson of Nigeria's needs for high-level manpower in 1970 (Federation of Nigeria, 1961). The Sierra Leone Education Review of 1974 drew on a number of studies of the trends in the educational system (Palmer, 1971). In Botswana, the comprehensive education review, *Education for Kagisano* (Government of Botswana, 1977), used some of the IEA Survey techniques and instruments for assessing educational development in the country.

Much research has also gone on in history, music, literature and the various sciences which has led to greater localization of content in these disciplines. The bulk of educational research is however to be found in universities. The links between research and policy-making have depended often on the extent to which the government is involved to the commissioning or conduct of the research.

There is evidence that governments occasionally commission research studies, for example, the extensive research which was conducted in respect of environmental studies at IPAR Buea at the request of the Cameroon Government (Bergman and Bude, 1977).

Sometimes research institutions deliberately involve ministry officials and policy-makers as in, for example, the Ife six-year primary-school project in Nigeria. In such cases utilization and impact are immediate. Yoloye (1986) has summarized research related to curriculum development.

In Senegal there is a deliberate government policy to promote greater involvement of local research workers *vis-à-vis* foreign experts. Accordingly, research projects are commissioned to national institutions, headed by national experts who then work with teams of other local research workers.

In short, it is clear that educational research is becoming increasingly important in African countries. It is therefore appropriate that attention should now be directed at ways and means of linking such research with policy and of adopting a systematic approach to the establishment of research priorities.

Organization and management of educational research

Institutions and organizations involved in research

University departments and faculties. Only eight countries indicate university institutions which organize educational research (Benin, Congo, Côte d'Ivoire, Ethiopia, Kenya, Malawi, Nigeria, Senegal and Zaire). This is probably a reflection of the state of development of higher education in the countries.

Autonomous institutions. Only Kenya and Zaire indicate any autonomous institutions engaged in educational research. The National Christian Council of Kenya is probably an autonomous institution. The African Bureau for Education Science (BASE), Zaire, derives much of its financial support from the Zairian and other African governments.

Government agencies. Most of the institutions listed fall into this category; every responding country listed some government agency engaged in educational research. While the conception of 'educational research' varies from one respondent to another, there is no doubt that government agencies of a non-university type at present dominate.

Other organizations. Only three countries (Benin, Cote d'Ivoire and Nigeria) mention this category, the first two mainly professional organizations and the last the West African Examinations Council (WAEC) and the Nigerian Institute for Social and Economic Research (NISER), both of which carry out considerable educational research. There are, however, numerous professional associations in Nigeria that contribute immensely to research and publish research journals, which are not mentioned. It is possible that similar professional organizations in the countries have been inadvertently underplayed in the listings.

International organizations. The extent to which organizations such as the World Bank and other United Nations agencies play a part in research is probably underplayed as these organizations often cover the entire region in their activities. It is perhaps true that they do not necessarily support national research efforts to the same extent.

Financing of research and training of research workers

Budget allocation for educational research. In most cases, research funds are embedded in general educational or institutional budgets and the amount that goes into research depends on the discretion of whoever apportions the budget.

Criteria for fund allocation. Five countries (Cameroon, Congo, Kenya, Nigeria and Zaire) adopt a system of assessment of research proposals by some research committee using such criteria as the relevance of the objectives of the research, the scientific feasibility of the studies, the time schedule and amount of funds available. Four countries (Burkina, Burundi, Ethiopia and Mali) rely mainly on external funding for educational research. In principle, priority is decided by the country, but the criteria for funding depends wholly on the donor agency approached. It is also known that such external agencies often determine the direction of the research. Five countries (Côte d'Ivoire, Equatorial Guinea, Guinea-Bissau, Senegal and Seychelles) say there are no established criteria for fund allocation. The others are silent on the issue, leading to the presumption of no laid down criteria.

Training of researchers. Nine countries (Benin, Burundi, Cameroon, Congo, Kenya, Mali, Nigeria, Senegal and Zaire) indicate that a certain amount of training for researchers is provided locally. There are indications for example that such local training is more prevalent in universities in Nigeria and Kenya. At the other extreme, what Burundi regards as local research-worker training is the in-service courses for teachers.

Although some countries do not state it specifically, it is probably true that all of the countries do quite a lot of their training of research workers abroad in developed countries.

Determination of research priorities and policies

Central mechanisms for research in education

Nine countries indicate some central co-ordinating mechanism for co-ordination of research in education. In Burkina, Cameroon, Congo and Senegal, the ministries of planning, education or higher education play this role. Kenya, Nigeria and Guinea-Bissau designate certain parastatals for the purpose (KIE, NERC and DEPOL respectively). These agencies however have had little impact in practice. In Kenya, three agencies play an active part: the Office of the President, the National Council for Science and Technology and the Bureau for Educational Research (BER). The first two deal with research in general while BER deals with educational research. Their activities are not co-ordinated. Seychelles delegates the function mainly to the National Institute of Pedagogy, while Benin has a central council for research, which is ineffective.

Mechanisms to review educational research

The evaluation of research may take place at various levels. Student research presented as dissertations or theses are perforce evaluated by the examiners. Such evaluations are common to all the countries where there are higher-degree programmes in the universities. For non-student research, only six countries have any mechanism (Cameroon, Congo, Ethiopia, Kenya, Nigeria and Zaire). It is obvious however that even in these countries the procedures are not clearly systematized and most are still trying to formulate appropriate mechanisms.

Priority fields for educational research

In general, priorities do not seem clearly defined. Mentioned areas are: basic primary education (Burkina, Congo, Mali, Nigeria), national languages (Senegal, Seychelles), curriculum development (Nigeria, Senegal, Equatorial Guinea, Côte d'Ivoire), planning management of education (Kenya, Nigeria, Burundi), training of teacher trainers (Benin, Congo), relevance quality of education (Ethiopia, Kenya, Nigeria), equity in education (Kenya, Burundi), co-operative education (Burkina), efficiency in education (Kenya, Burundi), evaluation of training and education (Burkina) and technical professional education (Congo). In all, eleven countries indicate that specific areas of priority are defined.

Modalities of co-operation

Some attempt has been made at promoting formal co-operation between research workers in six of the countries (Burundi, Congo, Kenya, Mali, Senegal and Seychelles). Kenya points out that such co-operation has been mainly in the field of curriculum development. Some countries (Burkina, Cameroon, Nigeria) indicate that such co-operation is mainly at an informal level, conferences and seminars, for example.

Inventories of priority research projects

Most countries have no inventories of priority research projects.

Dissemination and utilization of results

Mechanisms for dissemination of research findings

Networks or agencies for dissemination. In general there are very few networks for dissemination in the African countries. Nigeria is the only responding country that has established a national network, the Network of Educational Services Centre in Nigeria (NESCN) under the co-ordination of the NERC. The national network in turn links with the Network of Educational Innovation for Development in Africa (NEIDA) in the Unesco Regional Office for Education in Africa (BREDA), Dakar. It seems clear that NESCN is not set up to disseminate research in general but that dealing with educational innovations and educational resources.

Publications. There is a marked scarcity of journals for dissemination of research findings. There are close to 100 such journals in circulation, but their quality and regularity of appearance vary widely. At the top end is Nigeria which lists twenty-eight; most of the others, with the exception of Kenya and Côte d'Ivoire, have no more than two. Burundi indeed speaks only of brochures rather than journals. Guinea-Bissau is planning a journal for DEPOL.

The other countries may have had journals at one time. Kenya, for example, used to have two, (*Kenya Educational Review* and the *Journal of Education in Eastern Africa*, since defunct due to financial and organizational problems. BER, BERC and the Faculty of Education, Kenyatta University, have new journals.

Conferences and colloquia. If publications are few, research conferences are even fewer. Only Nigeria, Kenya, Congo and Burkina mention any conferences at all.

Media. Dissemination through the media is very scanty. Only Senegal seems to have well co-ordinated television dissemination programmes and radio. Benin, the Congo and Nigeria also mention the press and radio, while Seychelles mentions the press only.

Utilization and impact of research. Teachers are involved in research in several of the countries. However, there are wide variations in the mode of involvement. In seven countries (Benin, Burundi, Congo, Kenya, Mali, Nigeria and Seychelles) primary- and secondary-school teachers participate actively in the data-collection phases of research. Ethiopia reports that teachers participate only as subjects for research. In Côte d'Ivoire and Zaire, teacher participation is only at university level. Burkina and Cameroon state categorically that teachers are not involved.

Strategies to promote utilization. Six countries (Benin, Burundi, Congo, Guinea-Bissau, Nigeria and Seychelles) state categorically that there are strategies for promoting utilization, involving in-service training and supervision of teachers, meeting between ministry officials and teachers, occasional colloquia and seminars and close links between the research agency and policy-making bodies.

Measures to promote greater impact of research information. The single most common measure is the use of schools as experimental schools for educational reform (Congo, Mali and Seychelles). Some countries however have set up specific agencies to monitor the impact of research, for example the INE in Cameroon and the councils on educational research in Congo. In Ethiopia there are periodic evaluations of project impact by personnel of the Ministry of Education.

Educational research policies in Asia and the Pacific

R. P. Singh

Educational research *per se* has very restricted significance and may interest only a few individual scholars. Research, like all educational endeavour, has social relevance for the simple reason that it seeks to explore causal relationships between the norm and its deviation, between practice and the ideal, between what is and what ought to be. By implication, research focuses its attention on the nature of the existing problems and suggests possible ways and means of resolving them. Diagnosis of the malaise is surely not its remedy. Remedies are chosen from a whole range of medicines that are available to an expert medical practitioner. The correct choice is likely to result in a cure. This analogy is deliberate and reflects the nature of educational research and the underlying concepts behind the scene.

In Asia and the Pacific people seem to have realized that the only research which deserves public support is that whose results promise applicability, research which is diagnostic or of the intervention type, providing planners and/or administrators with alternatives from which to choose. It must be goal-oriented and perform a specific function. What is termed as basic research has its own role and deserves consideration.

The desirability of educational research

People want to see a direct cause and effect relationship between research and reform. They assume that for bigger problems small research will not do. A national problem demands a large project or alternately an ad hoc arrangement. Small projects of the action research type are assumed unable to make any dent in national problems. This belief is firmly rooted even in the case of those where small-scale research on a shoestring budget has produced results.

Educational research *per se* is of recent origin and does not compare favourably with research in other disciplines, such as the sciences, arts, medicine or engineering. One of the major handicaps in its growth, development and acceptance has been that education in itself has failed to acquire the status of a discipline. Even today, for all its major theories, education depends on other disciplines. Education has few distinctive features of its own. Against this background, it is not difficult to see why educational research has taken so long to come of age or why it does not enjoy similar status to that of other disciplines. Educational research has rarely thrown up practices that have universal validity and the research findings of educational workers have seldom been unequivocal.

Research dissemination

Research dissemination is not the sole responsibility of research workers. It remains even now the weakest point in the entire gamut of research work. Journals, yearbooks, bulletins, etc., published on a regular basis supposedly perform this job.

BEST COPY AVAILABLE

The increasing utilization of computers for storing and retrieving research findings is likely to bring about a revolution in the dissemination of research, but so far very little appears to have been done in this regard.

Analysis of country responses

Fifteen states responded to the Unesco questionnaire. For purposes of analysis these countries cannot be grouped together politically or economically. Nor are they educationally homogeneous. To impose some homogeneity responses have been grouped into four broad categories: (1) Sri Lanka, Pakistan, Nepal and India; (2) the Philippines, Malaysia, Indonesia and Thailand; (3) Australia, China, Fiji, Japan, the Republic of Korea, New Zealand; and (4) Iran.

Group 1: Sri Lanka, Pakistan, India and Nepal

Countries in Group 1 have three different structures for the organization and management of research: institutes created by the ministry of education for the purpose of conducting educational research, faculties of education in different universities which have a long tradition of individual research and institutions run by voluntary organizations, specifically oriented to conducting research on grant-in-aid basis. India has a large number of universities which conduct graduate-level research in education. In Sri Lanka a National Institute of Education has recently been created to assist the Ministry of Education. There are also faculties of education in different universities where research in teaching and education is done. Pakistan has a National Institute of Education in Research (Allama Iqbal Open University), a National Institute of Psychology (Quaid-i-Azam University), and the International Islamic University which carries out research relevant to the Islamic system of education. The Academy of Educational Planning and Management has been established to assist the Ministry of Education: (a) to undertake programmes of training educational administrators at different levels; (b) to conduct research in educational planning and management; and (c) to co-ordinate training and research in educational training and management at the national and international levels. Curriculum bureaux attached to state governments and intermediate and secondary education boards also conduct research into improving examination systems.

In Nepal there is a Research Centre for Educational Innovation and Development (CERID).

In India besides the National Council for Educational Research and Training (NCERT) and NIEPA, research in education is conducted in different university faculties of education. The University Grants Commission (UGC) has set up a Centre of Advanced Studies in Education (M.S. University of Baroda) which has numerous fellowships both for teachers and recent graduate students who conduct education research. Faculties of education conduct research more or less in isolation, and directly related to doctoral degrees. It is only recently that the government has begun requesting universities to conduct research relative to solving social and educational problems. Since the results of all the Ph.Ds. conducted in the universities are being brought out in the form of Indian education yearbooks, it is possible for educational administrators and policy-makers to consult research in different areas of education for purposes of policy framing and implementation of government resolutions.

In all these countries there are research journals brought out by national organizations for the purpose of disseminating educational research. For example, in India NCERT brings out six journals to improve classroom practices and also to disseminate research findings, and UGC brings out its own journal and finances several others. It is possible to identify the money allocated to the national institutes of education, but then not all the activities of national institutes constitute education research. In all four countries regular budgetary allocations for education research are made to the universities. Educational research is funded normally as project grants by the Ministry of Education in the areas in which the government it is necessary to undertake research on a priority basis. In India numerous areas have been identified for allocating UGC and NCERT research grants to individual scholars and to faculties of education for conducting research. UGCs are: (a) case-studies on child labour, child abuse, industrialized children, delinquents and children under foster care; (b) studies of school drop-out, wastage and stagnation; (c) preparation of in-depth social profiles of children in deprived ecologies such as urban slums, tribal pockets, drought-prone areas, coastal areas, hill tracks, desert areas, etc.; (d) survey of children's reading habits and compilation of a bibliography on children's literature; (e) problems of nutrition and health of children; (f) the phenomenon of begging in India; (g) personality disorders; (h) management of education; (i) economics of education; and (j) educational technology.

The universities and colleges have been advised to send research proposals, particularly those in the priority fields, to UGC for academic advice and funding.

Similarly, NCERT's Educational Research and Innovation Committee has identified several priority areas, such as universalization of elementary education, problems of scheduled castes and scheduled tribes, non-formal education, distance learning systems, etc.

For the training of research personnel, teaching research methods is an element in university graduate courses. NCERT organizes training seminars for research workers on a regular basis and has an on-the-job training programme for research scholars. Both NCERT and UGC award contracts on educational research to individual scholars working in various organizations. In Pakistan the Ministry of Planning and Manpower Development, Women's Division, and the Ministry of Health deal with educational research projects. Pakistan and Nepal follow more or less the same pattern as India for training research personnel.

In Pakistan research priorities are fixed by national institutions as a function of national education policy and by the Planning Commission in consultation with the Finance Division. As and when the projects are agreed to by the higher authorities, the co-ordinating role is performed by the executing agency, the Ministry of Education.

In India research policies are determined by the government and by organizations such as NCERT, NIEPA, UGC and the Indian Council of Social Sciences Research (ICSSR). The universalization of elementary education is a major research area in which all sorts of projects are accepted for research grants. The problems of scheduled castes and scheduled tribes receives attention because of the peculiar nature of Indian society. Problems of minority education similarly constitute another priority area. India has entered in a very big way the era of improving the educational standards of its institutions and of the masses. Both television and radio have been geared to provide necessary assistance. All the programmes regarding educational research etc. and funding of different organizations are approved by the Planning Commission which is headed by the Prime Minister himself.

Sri Lanka reported no central authority which determines priorities. In Nepal, the Research Managing Committee of Tribbavan University identifies research needs and priorities. The co-ordination of research work is done in consultation with CERID and the Ministry of Education. The seventh five-year plan emphasizes literacy, upgrading education standards, female education and enhancing supply of skilled manpower.

Almost all countries under review have a mechanism whereby research scholars and eminent educationalists are associated in the fixing of education policies and determining priorities in educational research. In India, national education policy is prepared and implemented with the approval of the Indian Parliament. In Pakistan, an education council has been constituted and there is a central bureau of education with a planned research committee for determining a national education research policy.

In all four countries the ministries of education are aware of the research findings of important research projects undertaken in the recent past. For example, in Pakistan the government is interested in the development and expansion of primary education, reforming its examination system and evolving curricula. However, there is frequently a lengthy delay in relaying research to the Ministry of Education.

In India, the research may take a long time, but the communication of research to the government or collection of data for formulating policies at the ministry level is adequate and prompt owing to the existing infrastructure in collecting data. NCERT has its counterparts, the state councils for educational research and training (SCERTs); there are seventeen NCERT field offices which are in direct communication with the states and with NCERT itself. In addition, NCERT has a survey and data processing department equipped with computers and methodology to collect data and which periodically undertakes national surveys for the assistance of the Ministry of Education. The Ministry of Education also has a section which collects data for both itself and the Planning Commission. The Planning Commission also collects data.

UGC has a panel on teacher education which provides a forum for policy-makers, educational planners and researchers for the utilization of research findings.

In Pakistan there are two publications which regularly carry research findings: *Bibliography of Researches in Education* and *Educational Research Abstracts*. A typical journal of education is in the pipeline to disseminate research findings. Pakistan has published a number of project reports and organizes on a regular basis seminars and workshops for research. Other journals are: ***Bulletin of Education Research*** (Institute or Education and Research, Lahores), ***Journal of Scientific Research*** (University of the Punjab, Laheres) and the ***Sind University Journal of Education***. Pakistan also disseminates research findings via television and radio. Teachers participate in research and conduct research themselves. Through libraries, workshops, journals and the media research findings are documented and reported. Pakistan will soon have data banks for storing research information and the use of microcomputers is already in the early stages of development.

In Sri Lanka, the university of Colombo publishes two journals, one in Singhalese and one in English, to disseminate research findings, and an annual statistical hand book on higher education.

In Nepal CERID has its own newsletter in English as well as one in Nepali. The CERID documentation centre serves as a resource centre both for CERID employees and others interested in research. There is active co-operation between research scholars and the higher decision-making bodies.

In India most research organizations publish their own journals for disseminating research findings. NCERT itself has six journals, two devoted exclusively to reporting research findings (one in Hindi and one English) as well as the ***Indian Educational Review***, an internationally recognized research journal. UGC produces the ***Journal of Higher Education*** and several others. Both NCERT and UGC organize workshops and conferences as part of their regular activities. Research in basic disciplines is also conducted by several other organizations such as ICSSR, the Indian Council of Philosophical Research, the Indian Council of Historical Research, etc. The national policy of education was prepared in consultation with these bodies and scholars available throughout the country. Several programmes now undertaken by the central government through its own agencies and grant-in-aid institutions have emanated from research findings, for example, the provision of schools within the walking distance of one kilometre for all children was the result of the first and second eduction surveys conducted by the NCERT; and examination reform, improvement in testing, programmes for scheduled castes and scheduled tribes, population education, women's education, etc., resulted from research conducted by NCERT and several other organizations.

The Indian Council of Historical Research was instrumental in the Development of a national policy on the writing of history books. The new programmes now under way are supported by the research staff working at, for instance NCERT who will be fully responsible for the implementation of government policies in the area of school education, such as computer education, running of model schools, preparation of video material and films, etc.

Group 2: Indonesia, Malaysia, Philippines and Thailand

Despite the existence of the National Research Council of the Philippines (NRCP), the main body for conducting educational research in that country is the Regional Centre for Educational Innovation and Technology (IMNOTECH). The other institute responsible for research and co-ordinating programmes on the developmental phase of growth of Filipino children and youth is the Child and Youth Research Centre (CYRC). The Programme for Decentralized Educational Development (PRODED), handles research relating to elementary education and other levels of education. Departments of Faculties of Education in institutions of higher learning are responsible for graduate-level research.

Priorities of education are fixed in the Philippines by NRCP with special reference to economic development, research needs, effects on ecology, contribution to the advancement of knowledge, availability of research manpower and facilities, etc. Similar criteria are adopted for the selection of research by PRODED for the instruction of the elementary education. Several other agencies conduct some research projects related to education. The National Economic and Development Authority (NEDA) provides financial assistance for research in education, such as surveys on educational institutions. Through workshops and other research programmes, the Philippines provides training to its research workers.

In Indonesia, the Directorate of Research and Community Service Development co-ordinates universities and other higher-learning institutions in the advancement of science and technology. Indonesia allocates research activities between 2 and 8 per cent of the total education budget.

Thailand also has given figures for annual education budget allocation to educational research, between 3 and 5 per cent of the total education budget. The National Education Commission is responsible for conducting educational research ranging from pre-primary schooling to higher education, non-formal education and education for the disadvantaged.

Indonesia and Thailand have only one institution each to take care of their educational research. Research priorities are fixed in relation to broad outlines provided by state policy. In Thailand Ph.D research programmes are undertaken by universities as well. Thailand has developed a mechanism to measure the impact of research on education.

In Malaysia the main national institute is the Educational Planning and Research Division (EPRD) within the Ministry of Education. EPRD acts as the Secretariat to the Educational Planning Committee. Several universities also conduct research both in the form of projects financed by the Ministry or individual research Ph.D leading. Training for research workers is provided by their university departments.

The future or education research is guided by the recently established Research Advisory Committee (RAC) which is responsible for promoting co-operation among educational research workers and policy makers as well as initiating research activities for research to be carried out jointly with the Ministry of Education. There is close liaison between the Socio-Economic Research Unit (SERU) in the Prime Minister's Department and EPRD. RAC's responsibilities includes identifying research priorities and formulating research policies. Malaysia has several journals as well as official reports on different education problems.

In Indonesia, the Directorate-General of Higher Education acts as central co-ordinator for managing research and education. The Directorate has developed training programmes for research workers. Priorities in educational research emanate from the broad outlines of state policy. Documents are published by the Board on National Development Planning and research findings are disseminated through journals. The major source for the dissemination of research is the National Library and the University Library system.

In Thailand, the National Education Commission (NEC) gives priority to current problems in education which have a bearing on the National Education Development Plan. NEC is also responsible for co-ordinating research activities. Some studies have measured the educational climate in the country and assessed the impact of research on practice.

Priorities fixed for research in Thailand include: education and employment, work-oriented education, youth and employment, transition from school to work, cost-benefit in education (by level), education for the disadvantaged, educational quality improvement, effectiveness of instructional materials and aids, teaching methodology and the development of community colleges.

NEC is the central body in educational policy formulation, it co-ordinates various activities among several divisions, such as the Policy and Planning Division, the Research Division, the Evaluation Division, Information Division, etc. NEC serves as Thailand's information centre for education. Research reports are available to planners and administrators and Thailand reports that policy-makers do utilize research findings.

In the Philippines, PRODED acts as the central mechanism for determining research policies in education. A survey on the Regional Educational Research Capabilities in the thirteen MECS regions was issued in 1985. This is a new measure towards promoting a national educational research policy. The priorities therefore, are fixed by both PRODED and MECS. Research is disseminated through the documents brought out by MECS, CYRC and INL. PRODED, FABE, CYRC, INNOTECH, and MECS all bring out research reports to help policy-makers. The priorities include: the new elementary school curriculum, sector monitoring of elementary education, school location planning exercise, management studies for MECS, school cost study, nationwide survey of exceptional school-age children and feasibility study on implementing the IMPACT System on a wider Scale.

The Philippines also has a regular programme training research personnel. Most libraries function as resource centres to facilitate access to research findings.

Group 3: Australia, China, Fiji, Japan, Republic of Korea, New Zealand

Japan has three government educational research institutes, the National Institute for Educational Research, the National Institute of Special Education and the National Institute of Multi-Media Education, as well as numerous private institutes. Four centres, the National Centre for University Entrance Examination, the National Centre for Women's education, the Olympic Memorial Youth Centre and the National Language Research Institute dealing respectively with methods of selection for university entrance, women's education, youth education and the Japanese language. A unit in the Ministry of Education, Science and Culture conducts studies and undertakes surveys.

Finally, educational research is carried out in 461 universities (95 government, 35 local public and 331 private universities). They all have centres and research institutes of education. Learned societies for educational research are also active.

NIER with its nine departments conducts research to help planners and administrators, collects, stores and preserves information regarding educational research, organises regional seminars and maintains a library which is open for all.

Table 1. Number of research institutes and centres in education attached to national universities, classified by area of speciality (as of April 1985)

Area of speciality	Number of institutes and centres
Educational technology	19
Information processing	8
Science education	6
University education	4
Physical education	3
Pre-school education	2
Foreign language education	2
Special education	25
Others	71

The total budget for educational research allocated by the Ministry of Education, Science and Culture was 0.07 per cent of the general educational budget of 1985. The allocation of budget for research goes through the Ministry of Finance after other ministries have screened research projects.

In China, the National Leading Group for Educational Sciences Programme, set up in 1983, organizes and co-ordinates nationwide research in educational sciences. Colleges and universities conduct individual and group research. The Central Research Institute of Educational Sciences (CRIES), Beijing, is attached to the State Education Commission (SEC) and works under the direction of Academy of Social Sciences of China. SEC has over ten research divisions for educational theory, the methodology of teaching, the history of education and comparative education, etc. All provinces and autonomous regions have their own research institutes of educational sciences.

The Educational Development and Policies Research Centre comes under the authority of SEC. This centre is in charge of studying the national educational strategy, reform, educational policies, methods of teaching and foreign collaboration.

There are several research institutes located within other organizations: for example the All China Education Society is a large academic organization for those in educational circles. It carries out educational research and popularizes the educational sciences.

In the Republic of Korea, educational research is conducted at universities, government funded autonomous institutions such as the Korean Education for Research in Behaviourial

Sciences (KERBS), and government institutions such as the National Institute of Education, Research and Training (NIERT) within the Ministry of Education and Municipal and Provincial Institutes of Education.

Australia has a federal system consisting of six states and two territories, each with an independent education system. The Commonwealth Government gives education grants to states through the Commonwealth Schools Commission (CSC) and the Commonwealth Tertiary Education Commission (CTEC) for conducting or commissioning research, as does the Commonwealth Departments of Education (CDE). The role of these three commissions is to provide Ministers of Education with educational assistance in the areas of their own expertise.

The Australian Council of Educational Research (ACER) is an autonomous national research organization funded by the Commonwealth, the states and others. It undertakes its own research projects and receives contracts from states. It develops and distributes tests and generates its own funding. Technical and Further Education (TAFE) was established by the State, Territory and Commonwealth Ministers for Education to undertake TAFE research and development projects of national significance. Eighteen universities have departments of education training candidates to do research both at the MA and Phd levels. The Australian College of Education, a professional organization, conducts research as does the Australian Teacher's Federation on behalf of its members. Australia allocates 0.4 per cent of the total Commonwealth Education Budget to educational research.

Educational research in New Zealand is carried out by the Department of Education, the government-funded autonomous New Zealand Council for Educational Research and seven universities with their departments of education. The activities of the council are regulated by members who are elected to form an electoral college. It decides its own policies and controls its activities.

The normal procedure for conducting research is to enter into a contract with the department and receive a grant. The research priorities are normally fixed by one of several divisions of the Department of Education.

Fiji has a regional university where educational research is conducted through the Institute of Education. The Research, Training and Development Department within the Ministry of Education is also active.

Japan has no central mechanism for determining priorities in educational research. Various institutes establish their own priorities and they have their own mechanism for reviewing and assessing research. Japan has not developed a national education research policy, although a Council for Educational Reform was set up in 1984 in the Prime Minister's Secretariat. There is also a Standing Liaison Committee (1973) liaising between the Ministry of Education, Science and Culture and NIER which meets twice a year.

NIER is responsible for collecting, storing and disseminating educational research information; it also serves as a clearing-house, publishes monthly reports, organizes meetings and seminars and offers library service to all research scholars. In Japan, schoolteachers also conduct research into methods and contents.

The Academy of Social Sciences of China (ASSC) offers professional advice to state educational research projects and provides necessary funds. ASSC has research institutes of Philosophy, Institute of Psychology, etc., under its own charge. Several research institutions provide assistance to Chinese scholars for conducting educational research. International organizations such as the United Nations Development Programme (UNDP) the United Nations Children's Fund (UNICEF), and the World Bank provide financial assistance and offer exchange schemes. Priorities in educational research are fixed by the national leading group for educational science programmes with the approval of SEC. There are two sets of priorities, one determined by the leading group and the other by the SEC. In the first priority, one finds such topics as: (a) study on Marxist educational thoughts; (b) primary, middle school and college students and educational research; (c) research on the structures of China's higher education; and (d) forecasts of professional personnel. CRIES publishes over fifty journals and periodicals, and offers library services to the research scholars.

In the Republic of Korea, the institutes themselves prepare plans and submit them to the minister a month before the start of the new financial year. Training for research scholars is provided both within the country and abroad.

The Ministry of Education fixes research priorities and selects professors for conducting research. Priorities include: (a) re-enforcement of spiritual education; (b) expansion of opportunity for pre-school education; (c) improvement of primary and secondary education; (d) reform of college education; (e) reform of scientific, technical and trade education and re-enforcement of education for the gifted; and (f) the establishment of a life-long education system. While the Ministry of Education selects research projects, the actual research is conducted by KEDI, whose major role is to advise the Ministry on education policy.

Teacher participation in the development of teaching/learning materials is good. Training is provided to teachers for conducting research.

In Australia, the Commonwealth and state governments are committed to provide funding to ACER and the TAFE R&D centre. The final decision is taken by the Ministry of Education. For specific projects, universities also have funds available. There are several other institutes that conduct educational research, namely, the Institute of Formal Studies and the Institute of Aboriginal affairs, etc. Research scholars are trained by the universities. The Australian Association for Research in Education (AARE) arranges seminars and workshops every two months.

The Australian Education Council (AEC), made up of states and Commonwealth Ministers of Education, convenes bi-annual conferences which offer information and ideas and organizes exchange programmes on current and planned activities. CTEC and CSC plan their own research, ACER has three-year research programmes. The educational priorities include educational opportunities for disadvantaged groups, school committee liaison, and literacy and numeracy.

For the dissemination of research findings, Australia publishes a bibliography of education thesis every year and an Australian education index. The Departments of Education of the various states have developed structures and mechanisms to promote the use of research findings at the school level. For example, in Victoria a major curriculum discussion role is undertaken by curriculum consultants. The TAFE R&D centre encourages the dissemination of new ideas and innovations related to research-and-development through the provision of seed grants and monitors the usefulness of this kind of approach.

In New Zealand, the formal practice involves contracting research outside the Department of Education. Projects are not restricted to applied studies and typically reflect both researcher's academic interests and the Department's research priorities.

There is no mechanism to co-ordinate or fix research priorities. Within the Department of Education itself the research and statistics division serves as the central co-ordinating body for research. Research projects within the department are reviewed at the time of development and application and on completion. Research priorities are reviewed annually by the Department of Education. As and when research projects are completed research workers present their findings in a seminar organized by Department of Education policy makers. The Department of Education promotes teacher participation through the research-affiliated scheme. because of the small size of the New Zealand research community, regular contacts are possible.

There appears to be a systematic effort to implement major research findings. For example, a major new policy in the area of reading was introduced in 1985 as a result of a three-year research project.

In Fiji, the central planning office of the Ministry of Economic Planning in 1986 collaborated with the research unit of the Ministry of Education in the preparation of projections pertaining to school leavers. The University of the South Pacific provides training to research workers; there is also a system by which in-service training is given to staff members.

The research unit of the research training and development section of the Ministry is responsible for collecting and compiling data for research purposes. They also identify areas of priority in education. In the ministry's budget, different funds are available for research activities. Every year a review is undertaken of the extent of success of each education programme.

There is a close liaison between the Ministry of Education, the Public Service Commission and the Ministry of Finance. While fixing priorities, teachers are consulted through the organization of committees. The research section of the Ministry of Education brings out regularly publications such as the education gazette and the Ministry of Education's annual report. Teachers are involved regularly in research activities and are expected to provide leadership to facilitate maximum utilization of research findings. All curriculum changes and innovations that have taken place are the result of research carried out in school. The introduction of a new curriculum, for example, is always followed by Pilot projects.

Group 4: The Islamic Republic of Iran

The Organization of Research and Educational Planning (OREP), is responsible for carrying out research in the field of educational innovation, teaching methods and textbook materials. It also prepares school textbooks up to the secondary-education level, publishes educational journals and plans teacher-training programmes. OREP was established in 1976 and is chaired by the Vice-minister of Education.

Training the research scholars is undertaken by the office of training affiliated with the Plan and Budget Ministry. OREP sets educational research. A close co-ordination exists between the OREP and the educators on the one hand and schoolteachers and administrators on the other. The research findings are disseminated through the quarterly *Journal of Education.*

Overview

The pattern that has emerged is that the majority of the responding nations have educational research organizations as part of the Ministry of Education, though the ministry seldom assumes responsibility on its shoulders directly. The universities train research workers through Master's and doctoral degrees and alternatives routes have been created by governments. It is possible that governments do not trust the university departments to function in accordance with their desire or goals, or perhaps they want institutions to be completely devoted to the assignment given by them. The structures created are by and large autonomous in definition, but in practice they appear to be completely controlled by the respective governments.

Among the questionnaires analysed here, except for two or three countries with a tradition of assigning contractual work to the universities, both the work and the priorities are by and large determined by the Ministry of Education, directly in consultation with organizations set up for the purpose or indirectly by granting or refusing grants. Either way, the priorities appear to be established by the government or by an agency created by it. In most cases, these priorities have been published and well publicized. Decisions seem to be taken on an ad hoc basis in only a few cases. The majority of the responding countries have or are in the process of evolving a national educational policy and it is natural that their educational research conforms to government policy decisions.

Most of the countries have their own problems, which are different from those of other countries. By and large the so-called developing countries have a tremendous problem of illiteracy and non-formal education; they have systems for constantly upgrading data and for varied experimentation in the search for viable solutions.

Four governments only could provide information regarding the financial allocation for educational research.

Another fact that emerged from the responses concerns dissemination of research findings. Almost all the countries have educational research journals which provide information on both the design and the findings of the research. A number of research projects are financed by governments; findings are critically reviewed at a high level, indicating that governments are interested in them to the extent that they can help resolve problems. In addition to journals and yearbooks, which the governments publish, seminars, workshops and the media are used to disseminate research findings. Radio and television are used regularly both for classroom instruction and for disseminating research findings, the latter through organized discussions.

Almost all countries are evolving a parallel system of training their research workers. Countries are no longer satisfied with the research training provided at university level; they would like to supplement this through a regular in-service programme or one-off on-the-job training. Countries such as India and Australia have been training their research scholars both through the university system and outside it.

Governments are becoming aware of the fact that problems cannot be resolved by political decisions alone; educational problems require more research, attention and discussion than do decisions taken in any other branch of social activity. This is one reason why governments are becoming interested in setting up new organizations or supporting those in existence. Experience has taught them that the universities cannot be excluded completely from the decision-making process.

The Synthesis Report On The European Region

Edmund King[1]

The present synthesis report and the observations in it are intended to give a Europe Region overview of: (a) the more important ways in which, according to national replies, educational research (especially that of a comparative kind) is seen as an aid to policy-making; (b) actual mechanisms or practical examples of conducting research, particularly of linking such research with policy-making or educational practice; and (c) evidence (if any) of ways in which feedback from experience enters into both research and policy-making, with particular reference to feedback from 'actuality' in school systems or from the experience of particular groups of people (e.g young adults or parents).

This synthesis report is based upon the country reports supplied to the author. Obviously, those varied in general content, length and emphasis even while responding to the Unesco questionnaires. They were therefore compared and analysed in an international perspective, with a view to their implications for policy development and implementation.

Furthermore, many or most of the national reports reflect the responsibilities and concerns of ministries of education (under their sometimes differing names), whereas in some circumstances important research and innovations with a direct bearing on education are undertaken by other ministries, public and private enterprises, and groups or individuals. Consequently, an attempt has been made in this report not merely to recount the information supplied by contributing countries but to present it in terms more or less equivalent for all the countries involved, and with similar degrees of emphasis for all the research themes and fields of contemporary investigation.

The presentation of a European overview of educational research and innovation today reveals that some countries take a far more inclusive view of their research responsibilities than others, that some extend the network of research partnerships more widely and that some more directly acknowledge the significance of research for policy-making.

The very purpose of undertaking an international survey of the present type is clearly to provide policy-makers with evidence or questions (and perhaps even examples) which they may wish to take into account when taking thought for their own national future. The present report recognizes that possible outcome and welcomes it, without presuming to teach any lessons or evaluate conclusions. The purpose of this exercise is to offer a comparative analysis of how educational research (and other research affecting educational policy) is envisaged, institutionalized, and supported in varying degree in the countries submitting evidence, always within the perspective of a rapidly changing international situation. For that reason it will be advantageous to suggest a conceptual framework and a method of analysis appropriate to the task in hand.

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Limitations on the comparative analysis of research policy

Education systems have always been, and still are, considered within a national framework of laws, intentions, interests, resources and long-standing habits (especially as reinforced by institutions of education and patterns of recruitment to occupations).

Most of this institutional framework has been set up and activated in past times with little or no regard to research as at present understood. Improvements or innovations have been introduced by reformative legislation of a political nature, or with economic intentions. Criteria used to measure educational success or the desirability of new elements have been appropriate to these intentions; within this set of considerations any pedagogical evaluation has had to play a subsidiary role, In other words, research has been expected to measure 'performance' such as the output of workers suitably qualified for the tasks envisaged or of candidates sufficiently prepared for the next stage of formal education. Research which could, so to speak, stand back and investigate the suitability of the larger processes of education (even within the formal education system) has not everywhere been welcomed, and has always been difficult.

One main reason for that is to be found in the official nature of publicly provided education, in consequence of which educational investigation might seem to be a criticism of the approved system, especially where regulations are centrally devised and controlled, and where all teachers and researchers are public servants.

Moreover, there is often an assumption of continuity or continuous development in the education system. Alternatively (or perhaps at the same time) there is official planning, if not prediction, of what will happen in given circumstances.

It is common knowledge that the content of formal learning (the 'subjects' of schooling and the 'topics' within them) is constantly changing in its relative importance, as illustrated by the present near-universal concern for mathematics and the physical sciences. Nearly everyone, too, has heard of the new technologies for communication and production, albeit not always in connection with their implications for what is thought to be most important in school, or for how and when things are learned. The leaders of national policy-making, and most educational researchers nowadays, are greatly concerned with the long term implication of these shifts in educational priorities; but on-the-ground teachers, and even some highly dedicated and perceptive researchers engaged on very specific investigations, all too often underestimate or ignore the grave implications of generic changes in the educational environment which put quite a different complexion on their fields of investigation.

It is particularly difficult for officially appointed researchers assigned to a particular project of investigation to disengage themselves and 'stand back' so as to see the relativity of their position and their concerns. That is especially true when the research commitment forms part of a teacher's or researcher's weekly or annual quota of officially paid time.

The difficulties mentioned here have occurred in several of the countries covered by the present survey, though they are understandably not mentioned in the reports, since these are concerned to make a short-term answer to specific questions raised in the Unesco enquiry.

Nonetheless, these underlying local factors remain as basic considerations for those who endeavour to find out (as the Unesco survey does) the structure of provision for research its operation in practice, and the diffusion of information for educational innovation in consequence of research.

A further limitation on the possibilities of effective comparative research is to be found in the restricted time-span covered by the inquiry. Inevitably many longer-term considerations or perspectives have with equal justice been excluded from the national replies.

A transformed context for educational research

No educational event or problem occurs only in a school, a system or a country's special context. Today's context is not only one of unprecedented change in consequence of recent technological and international developments but of accelerating and largely unpredictable transformation. Today's educational prospect must therefore be that of preparation for uncertainty. In these circumstances, the entire position of research is altered: the data to be observed are different (especially in so far as they relate to policy-making); the relationships and form of scholastic structures are altering continuously; contacts between school or college and 'the world of work' are transformed not only at the point of labour market transition but in the evaluation of 'relevance' and information exchange; above all, perhaps, the channels of learning and re-learning throughout a lifetime of new interactions; all these bring a new horizon and a new sense of urgent relevance to educational investigation as an aid to policy formation.

Without doubt, the greatest shift of all has been in the population to be educated and in the relationship of learners to those who help them to learn. Indeed, in some measure, all teach and all learn all the time, The crux of educational investigation for policy-making is to be found here, in the interchange between those who learn, those who teach or train, and all the instrumentation and exchange of information in a rapidly developing 'communications society'.

Of course, much research will be continuously needed into the use and management of 'new information technologies' but that is quite a different problem (on the technical plane) from the essentially educational question of how the availability of these new means of learning, on a wide front and throughout life, in all kinds of circumstances, affects the entire provision of public education at every point of its contact with people.

Now, for the first time, we recognize the truth and practicality of the old principle that education (as distinct from instruction of mechanical training) only begins when the learner accepts, personalizes and develops whatever instruction is offered. This is a rich and challenging field of research with in every country and internationally, which is only now being tentatively investigated. The whole context of educational activity has already been, and is likely to be further, transformed. The focus of educational research has, logically, been shifted within that context.

Many of the reports refer to significant changes in the population to be educated. Some of these changes, and some 'problematic' groups, will be dealt with in more detail later in this report; but it is convenient here to illustrate the topic broadly. Obviously, the education and training of girls and women call for new attention not only because feminine claims are recognized more clearly than ever before but also because women's position in occupations and society has been altered by technological developments and by new attitudes to marriage and raising families. Several reports mention this topic.

Associated with it in part, but significant on its own account, is the growing concern for pre-school education, particularly for children in disadvantaged circumstances. That aspect takes us on to the education of migrants and (more recently) refugees. A further new element in educational re-consideration is the plight of the unemployed, and those whose job situation is either perennially intermittent or destroyed by take-overs or technological innovations.

There is evidently universal uncertainty about appropriate education for the 16-25 age-group in the perspective of occupational change. Innovation (for instance, to deal with or mask unemployment) has usually been over-specific and initiated by individual non-education ministries. It has hardly ever been preceded by research of an educational kind; still less has it been internationally comparative.

Although the present regional survey is concerned with 'Europe' (as defined by Unesco), many or most of the phenomena accompanying technological changes and their impact on education occur world-wide, at least in industrialized and urbanized centres; the challenge they represent seems in many ways distinctively 'European'. That is partly because European school/higher education systems and their lineal descendants (in Latin America, for example) have deep social roots extending far back beyond the Industrial Revolution during which those systems were elaborated into their modern forms, and therefore often draw on pre-industrial (if not medieval) concepts of society and the educational 'certainties' of another era. Consequently, the 'research questions' that are central to educational investigation in Europe often require a deeper social and contextual analysis than simple pedagogical concern might suggest; and this in turn demands a more penetrating analysis of what we mean by 'educational research'.

We can therefore move on to sharpen the analysis of 'educational research' as presented in the country reports by examining some differences in the concepts of both 'education' and 'research' revealed in them. Then (in general terms) we can note some differences in the institutions involved, leaving a detailed study of these until later. Next we may consider some differences in their operations at a research level. After that we can pass on to the mechanisms used for decision-making and implementation before finally observing to what extent feedback occurs as a cybernetic influence on the whole process of educational development and regeneration.

Concepts of 'education' and 'research' in the national reports

Attention has already been drawn to the well-known but sometimes overlooked fact that the provision of formal education is nowadays a government activity in many countries; it is a social service guaranteed by the government as well as part of the instrumentation of the process of governing. It may be part of a system of control, as reflected in the now rather old-fashioned term 'public instruction', and as revealed in the current concern for supplying manpower possessed of particular technological skills. Consequently, investigation or evaluation of educational activity may impinge on political discussion. Indeed, it is a commonplace of educational discussion today to say that all education is a political activity; even doing nothing at all about education is a political act. Certainly, manpower planning has for decades been integral to educational forethought in an increasing number of countries. Although the extent to which that has been formally acknowledged varies greatly, the most casual comparative observation shows preferential funding for various educational activities: technological education here, craftsman training there, updating teachers' education somewhere else, and so on.

Consequently, any comparative study of the part educational development and research play in policy formation (either in education itself or in the wider sphere) must take account of the 'ecology' and significance of any segment of the educational establishment in the whole educational and social endeavour. Otherwise we are not comparing like with like.

In some countries, formal education is almost entirely a public activity, and independently-organized formal education is either discouraged or strictly limited (for example, to the teaching of foreign languages or some technical/vocational skills). In other countries, manifestly, independently-organized education is of great importance economically and socially, to such an extent that it has a considerable impact on the public provision either by its example or by its encroachment on resources and esteem. Moreover, the degree to which there is co-operation or friction between the public sector (financial, political, or in terms of getting jobs) varies greatly between countries in actual fact and in the extent to which it is reflected in the national reports. No fundamental researcher, least of all a comparative investigator, can overlook these significant differences. Official information given to outsiders is sometimes inclined to say little or nothing about an independent sector even when it has a great political or social influence on policy-making. Comparative research must, therefore undertake a careful survey of some omissions from whatever information is provided. It is not so much a case of concealment as of habitual differences in thinking about what constitutes public education.

Furthermore, a comparative survey soon reveals that sport and welfare activities are enumerated under the heading (and budgetary aegis) of 'education' in some countries; it is obvious that the parcelling out of functions is guided by policy-makers' conceptual stereotypes.

Fundamental to any further analysis of this situation is the central concept of a ministry of education's role. Is it really a 'ministry of public instruction' which knows best, and guides all? Is it a source of enlightenment for all 'education'? Do its publicly set and authorized examinations constitute the criteria for all educational attainment, not only in achievement levels but in the variety of content? Is it a power-house of educational drive? Or does it admit the possibility of alternatives and pluralism?

These questions are prompted by the fact that the Italian report, for example, is exclusively a document from the Ministry of Public Instruction, whose references to educational researches speak repeatedly of 'authorization' by the ministry and of annual reviews by the ministry and its dependent organisms of researches undertaken under its direct sponsorship or by such autonomous bodies as the universities which receive ministry funding. The impression is left that the ministry considers itself not only as the authorizing body for 'public instruction' but also as the vigilant custodian of educational research. That is a very different situation from that in the United Kingdom, for example.

In a comparable (albeit functionally distinct) way, the French Ministère de l'Education Nationale presents in summary form an impressive picture of educational research well organized from the centre and in the light of official policy not only for education but for research itself. Once again, we see a public picture, with no hint of independent research by others than the officially invited investigators and bodies of teachers associated with the research programme. The dissemination of research is well taken care of, again from the centre. Any educational research or experimentation by unofficial bodies is absent from the brief document submitted.

The point at issue here is the difference in conceptual approach to the whole responsibility for education and to the furtherance of research likely to be influential in the shaping of policy, especially in the perspective of rapid changes likely to follow the technological explosion of our times.

How can limitations or effective constraints be put on either education or research? Previous concepts of both need to be reshaped.

Such reshaping may be even more necessary if international appraisals of research are to reach a state of precision. What does the word 'research' mean? It is a term giving rise to ambiguity when we try to translate it in relation to precise activities. Let us think of the French phrase *à la recherche du temps perdu*, where *recherche* has nothing to do with 'research' as understood in English. Similarly Italian *ricerca* can signify (in addition to the other meanings of 'research') creative inventiveness in music and other arts. Therefore, quite apart from any misunderstandings that might arise from different ideas about 'education' and the possible implications of 'research' for policy, those who speak and write across language barriers may really be discussing different activities.

Ministries and their accountants must take stock of such things as the numbers of their students, buildings, teacher supply and, above all, money. That is a very practical kind of research and it is not surprising that the best-documented countries are proud of how much research they do. Some of them have exhaustively detailed knowledge of what goes on in schools officially, and as seen from the centre, without perhaps having conducted an on-the-ground research in schools or having asked any teachers or students what they thought of their educational experience.

There has been a shift towards 'action research', accompanied by some lessening of reliance on simple documentation or 'library research'. Nevertheless, paperwork or computerized research information continues to be of immense value as an objective basis for reformative activity, provided that this latter, involving people engaged in education (and especially learners) gradually assumes priority in educational research. Indeed, that research activity can by itself be truly educative in the strict sense of the word and not be merely about education. Thus several countries point with deserved pride to the involvement of teachers (and sometimes parents) in experimental programmes and their evaluation.

A further dimension may be introduced onto the discussion of 'research'. In countries characterized by an empirical approach to educational and social studies, the assumption prevails that research should produce not only concrete evidence but 'results' of a more practical kind which may be repeated in a given set of circumstances, but which are not always controlled or foreseen by the 'authorities'. Thus there are cumulative pointers to possible or likely outcomes, which are repeatedly tested by experience as well as by formal experiments.

The experiential dimension which brings feedback from the general practitioners and 'consumers' of education is increasingly significant as we approach a real 'communications society'. It is worthwhile to labour the semantic distinction between formal 'experiments' and practical 'experience' since some languages do not clearly distinguish between the words and by extension the ideas, which are important for a true perspective on 'research'. 'Experience' manifestly entails a much wider and more public evaluation of whatever is tried out.

However, it is not everywhere that even formally constituted experiments and innovations, let alone the feedback from popular experience, will be fully counted as kinds of research relevant to the formation and perhaps reorientation of official policy. None the less, the briefing sent out by Unesco to participant countries did ask precisely for all kinds of experimental situations to be included in the responses. It seems inescapable that, for the future, educational research will build into itself a far stronger element of 'consumer research', in much the same way as marketing and politics have had to do. That development will in turn require not only an updated concept of research but fresh instrumentation.

Institutional aspects of the present investigation

The instrumentation for educational investigation just referred to will, in part, be assured by the establishment of institutions and formal mechanisms for research; but an essential foundation must also be assured in a general state of public readiness for it. There is no point in building as edifice for research or innovation solely on legislation or on brand-new organizations which few people can manage properly. The basic institutional provision for educational innovation and research is to be sought in pre-existing social habits conducive to innovation, and in the climate of opinion, general as well as professional.

Thus there is a clear link between concepts of education or research and the institutional framework embodying them. To take a peripheral but significant aspect, if a school subject like Latin enjoys paramountcy not only in the formal curriculum but in the hierarchy of access to higher education and top jobs, then any attempt to dismantle or reform a school system enshrining that value will confront the opposition not only of specialist teachers but of parents and indeed of many employers as well as conservative politicians.

This fact is so well known that it would not be worth repeating here but for its similar impact upon the acceptability or otherwise of some kinds of research or political discussion. As recently as the late 1960s the Council of Europe felt unable to sponsor an internationally comparative survey of comprehensive tendencies in secondary schools because it would be objectionable to some member countries.

Since educational policy in the long run depends directly on votes at whatever level the decisions are taken, pressure of opinion from the general public or from those who directly control the purse-strings will effectively decide its direction and determine the implementation or otherwise of any policy adopted. It is perhaps not too cynical to observe that further research may take place to reveal that a policy is unworkable in actual practice, and that there should be a return to the status quo ante. It has been observed in a number of countries that the 'justification-value' of research is sometimes greater than its value for an 'examination of conscience'.

In considering the significance of national replies to Section A of the Unesco questionnaires, on the structure of countries' provision for educational research, we have to bear in mind that these structures, too, may contain hidden implications derived from the prevailing structure of scholastic institutions and the educational (or socio-political) concepts that they embody. At the outset we note that some countries have a unitary ministry responsible for all education (often including adult culture, sport and welfare). Others, like Finland, have separate ministries for general education and vocational education. Many (though not many in Europe) resemble Poland in having a Ministry of Instruction and Education and also a Ministry of Science and Higher Education.

Thus institutions are the repositories and matrices of the 'priorities' and 'dissemination/implementation' characteristics asked for by Sections B and C of the Unesco questionnaire. Of course, the questionnaire did not ask for the details now being discussed; yet no comparative study of research opportunities could possibly omit consideration of these background factors.

Let us consider this a little further. Teachers' unions (especially such powerful organizations as the Société des Agrégés in France and the Philogenverband in the Federal Republic of Germany) have their own ideas about the validity of any research, conceived or completed. Even when they try to disengage themselves from preconceptions, they are like all of us, prisoners of their past to a large extent. Around the activities and thinking of these professional organizations are the administrators and policy-makers whose rise to influence has been through particular school hierarchies and particular selection categories.

The report from Denmark frankly states that it has been very hard to get establishments and groups of personnel to co-operate for research because of 'barriers' unintentionally established in the post-1947 period of rapid educational reform. This situation is far more general than might be supposed.

Such difficulties are only to be expected where teachers have different professional designations according to the type or level of school they work in (as is the case in many countries) and have different salary scales. A less obvious, but no less potent, factor is the question of whether or not certain categories of secondary-school teachers have the opportunity (or qualification) to teach in higher education.

Considerations such as these effectively rule out wholehearted acceptance of some reforms, or even of research which might imply the need for them. Only comparative investigations can reveal the full importance of these factors. The task of comparative study is to pick out and analyse recurrent examples and apparently general trends. Manifestly, too, educational policy-making at a national or local level requires attention to domestic realities and to the long-term significance of decisions in the wider international context.

Professional services for research

At this point in reviewing the structure of provision for research it is convenient to move gradually towards the operational aspects of research and to consider how the different kinds of institutional provision for research actually work in practice.

Illustrations are provided of the main types of provision and the representative circumstances in which 'official', 'less official' or even independent research may seem to contribute to changes in educational policy or practice.

It will be observed that even the apparently best-organized systems of research may have only a limited impact on policy, unless some extraneous event (such as an election) or the need to justify in retrospect a decision already made politically coincides with the conclusions suggested by research. It seems more likely that the impact of research is indirect and felt over a long period in the build-up of public opinion. Thus a conviction of the need for reform can only become really persuasive in electoral terms, rather than on 'scientific' grounds. No matter what researchers may think or wish, every major educational decision is a political decision.

The first impression received on reading through many of the national reports is that educational research (in the obvious sense of being research about education and aimed at its improvement) is of relatively recent origin and is rather limited. Furthermore, as the report from Luxembourg explicitly states, the general public has a poor opinion of educational research.

Several of the national replies explicitly confirm that politicians and administrators pay little intellectual (as distinct from political) attention to educational research in formulating policy or committing themselves to its implementation. This indifference need not be due to cynicism, but may arise from unfamiliarity with the complex field of education. On the other hand, the more serious journals in countries alerted to educational issues often report and discuss significant research findings and thus help to turn educational conviction into political conviction.

However, there is another potent, though sometimes forgotten, factor. From the very beginning of officially provided eduction, accountants and other officials have conducted investigations into the way money is spent on education. Thus they look for 'efficiency' in its use, and for 'productivity'. (However they seldom concern themselves with long-term educational effectiveness, a concept which is indeed difficult to translate into some languages.) Accountants and their kin need to have 'all the facts', and the 'facts' they look for are nearly all statistical. They have attained great power as well as a reputation for being 'scientific', especially during the heyday of studies in the 'economics of education', now regarded with some scepticism. Nevertheless, the mathematical dimensions of educational investigation still enjoy great prestige and in many countries they constitute the bulk of research into education.

Some countries, such as France, are renowned for the efficiency of their statistical services and for the rich detail they can supply on enrolments, expenditure, trends and so forth. The brief French report shows that under the control of the Institut National de Récherche Pedagogique there is a pyramidal organization for investigation and for the dissemination of official research findings. In France a hierarchy of research institutions, 500 correspondents in different parts of the country, 4,000 associated teachers, and *missions* in the regions, ensure widespread understanding of planned educational developments co-operation of teachers in them.

There is wide diffusion of research findings and information about educational developments through many publications and through teachers' participation in conferences and *stages*, either at the Centre International d'Etudes Pédagogiques on the outskirts of Paris or in one of the regional education centres (CRDP and CDDP). It should also be added, especially in the light of the French national report's emphasis on the growing interest in 'action research', that experimental institutions or programmes are widespread and well publicized.

The question nevertheless arises as to whether the kind of numerical information contained in the French report, really illuminates the essential question about 'educational' research: that is, whether investigations penetrate and throw light on the evolving problems of education (locally or in any circumstances) so as to aid policy-making for the solution of unfamiliar problems raised by the rapidly changing conditions of today.

Another question of great general relevance in considering national reports is how far countries' replies to international questionnaires give a icture of all that goes on in educational research and innovation. 'Independent' or 'free' schooling, and voluntary or independent research and experimentation of many kinds (sometimes of great significance) may not appear in official reports from a ministry of education. Indeed, the parcelling-out of educational activities between a number of ministries or departments in some countries may result in a shortage of really comparable information.

Such problems for the researcher, especially in an international perspective but sometimes even within a single country, are basic difficulties to be faced in any attempt to evaluate the force of educational research. On the other hand, this is just where comparative education comes into its own: the very complexities and idiosyncrasies of particular contexts can be prised open to reveal data or insights of general importance, if only we do not rely exclusively on official data or official awareness of what really goes on in education or, indeed, in educational research or innovation.

The Danish report offers an interesting example of how difficult it can be to appraise the extent of 'research'. It says that the volume of educational research in Denmark was 'fairly modest' until after the post-1944 expansion made the need for it felt and gave rise to a number of new appointments. In 1955 the Danish Institute for Educational Research was established. There had already been separate committees enquiring into the *folkeskole* (municipal primary and middle school) and the *gymnasium* (upper secondary school). The Danish Institute for Educational Research reported on educational experimentation in the *Folkeskole* in 1957, and in the *gymnasium* in 1959. In order to surmount the 'barriers' and inflexibility already referred to, the Danish Central Council of Education (CUR) set up in 1973. One notable outcome of this council's deliberations was the 1978 publication (also in English for international discussion) of *U90* - a policy-oriented prospectus of educational possibilities up to the year 1990. The CUR has since been discounted because of political changes; but the intention of such a publication is noteworthy. In the Netherlands a discussion document on their 'Mammoth Reform' and its prospects (1975) entitled *Contours of a Future Education System in the Netherlands* was likewise produced in English. By any criterion, this kind of experimentation and public policy-oriented discussion is a kind of research, particularly as they were accompanied in the schools by investigations-in-action, and by systematic studies in the universities and at the Royal Danish School of Educational Studies. The report says, however, that no mechanism exists for direct assessment of the effect of educational research.

It is a pity that replies were not received from Norway and Sweden. The Swedish 'rolling reform' towards comprehensive lower and upper secondary schooling in the post-war period provided a good example of interlocking research and government action, all the more so since the Swedish Board of Education is a research organization independent of the Ministry of Education and therefore able to range far and wide in its investigations. Its publications (again in English) are distributed internationally, giving a remarkable picture of highly specific and applied research projects undertaken under its auspices. In Norway there is of course high-powered research in higher education institutions, but what has captured many outsiders' interests has been the remarkable development of the regional colleges and Norwegian experimentation in higher education, all in addition to social and educational research of a very substantial kind.

The Finnish report gives an impressive picture of a strong formal provision for educational research. Eight of Finland's seventeen institutions of higher education have a faculty of education and a training school. There is also a National Institute of Educational Research, and all the personnel in higher education itself. At the time of reporting, 220 projects were under way, over half of which were receiving commission funds. Most studies concerns such subjects as psychology and child development; most of the research directly commissioned by the Board of General Education is applied research, to be done by the various departments of higher education institutions. The board conducts a biennial survey of the research needed by itself and suggests topics for research appropriate to graduate theses. Most research into vocational eduction is financed by the separate Board of Vocational Education and the Ministry of Labour. The report emphasizes the importance of the Research Council for Social Sciences in evaluating research needs and findings. It all seems to add up to a very active picture; but in response to the only Unesco question about teachers' involvement in research, the answer is given that some 2,200 institutions and individuals receive the Finnish Journal of Education.

The situation as regards research is more difficult in some smaller countries. For example, the answers from Malta acknowledge that although the need for research is felt (and there have certainly been some international advisory commissions), the smallness of the island and its limited resources do not allow the establishment of a large research institute. Nevertheless, research is carried out to a limited extent in the Faculty of Education at the University of Malta and officers of the Ministry of Education assiduously collect statistics.

Likewise in Cyprus there is much statistical documentation. The Department of Educational Statistics is a government agency while the Pedagogical Institute, established in 1972 to provide initial training and in-service education for primary- and secondary- school teachers, has some educational research facilities and acts as a dispersal point for research information gathered at home and abroad. Because the island has no university of its own, advanced scholars must be educated and trained overseas. However, from 1985 on there has been a one-year course on educational research, and third-year teacher-training students are taught to use computers for research purposes. Teachers are to some extent involved in action research.

The Cyprus reply highlights the recurring problem of training researchers, either for concentrated work as a researcher, or as part of the ordinary, continuing responsibility of a teacher. The development of research endeavours *ab initio* requires not only much encouragement and back-up but some grounding in statistical methods and experimental techniques, as well as a generally questioning attitude which many pedagogical training systems have never encouraged. Such problems are characteristic of small and newly independent countries, particularly those with restricted financial and/or academic resources.

In marked contrast to the small-scale, though often energetic, endeavours of less populous countries with a mainly homogeneous population, the USSR presents a striking picture of long-standing and far-reaching educational, social and economic research, all closely related to government policies both at the union level and throughout the individual republics.

Educational research in the USSR is conducted in over thirty institutes of scientific research, in the educational psychology departments of seventy universities, 200 pedagogical institutes and fifteen institutes of in-service training of teachers. The USSR Academy of Pedagogical Sciences is the chief centre for this research. Under its wing, some fourteen institutes are at work: institutes of general education, general and educational psychology, general problems of education, educational content and method, apprenticeship and vocational guidance, pre-school education, artistic education, school equipment and technical aids for education, institutes for teaching Russian in the USSR's constituent republics where it is not the mother tongue, institutes of general education for adults, of child and adolescent physiology, of defectology, of vocational and technical education studies, and the recently established institute of information and computer science.

These institutes pursue fundamental and applied research in relation to schools throughout the union. Research funds are not allocated to specific projects but are handed over to public educational institutions; they include the salaries and expenses of research personnel. The USSR Academy of Sciences maintains close links with the Academy of Pedagogical Sciences; thus studies of such interests as school health and agricultural education can be engaged in common projects. Researchers are trained by, for example, the preparation and defence of a thesis under supervision.

Research is all in accordance with long-term, mainly five-year, plans. The USSR Academy of Pedagogical Sciences is studying a scientific research plan which takes account of the reform in general and vocational education at present taking place in the country. The plan defines the research theme, its objectives, the forms of its achievement and obstacles in the short and long term. The Council for the Co-ordination of Educational Research ensures co-ordination of research in education and psychology. Each research sector is guided by a 'leader' institution, supported by institutions concerned with putting findings into practice. The Council sets the educational research programme for the five-year plans.

'Sub-systems' within the Academy of Pedagogical Sciences take account annually of research themes as well as of the forms and methods of investigation, according priority to research for updating secondary school curricula in general, vocational and technical education.

Since 1983 there have been systematic arrangements for the diffusion and practical application of the results of research. There are numerous publications available to Soviet institutions on these and other matters, and mass media of all kinds are involved.

Conferences and in-service training meetings take place in central and regional cities. Large numbers of teachers take part in research or innovation activities organized by the USSR Academy of Pedagogical Sciences and those of the constituent republics. The country's leading scientists play some part in these, paying attention also to the application of research to the schools and their programmes. 'Easy applicability' of research is now given close consideration.

Here we see a remarkable synthesis. On the one hand, there is very wide regional and cultural diversity, leading to very distinctive educational situations demanding a great variety of responses. On the other, there is strong unity of purpose combined with an overall endeavour to support educational growth, research and innovation.

As already observed, the very fact that successive legislation and reinforcing orders frequently occur in many countries is proof enough that the best-laid schemes often go awry, not only because of cultural, political and economic difficulties or human frailty but also because of different educational interpretations and preferences. In the matter of educational research and development a prime consideration for comparative study is the extent to which such differences are recognized as possibly complementary (and therefore positive) contributions and how far they are 'smoothed' out by the habitual working of the system.

In Hungary, educational research until 1981 was largely carried out by a pedagogical research team of the Hungarian Academy of Sciences; this system was discontinued in favour of a new pattern in which it is undertaken by teachers and teacher-researchers in the pedagogical and method departments of universities and colleges belonging to the Ministry of Education. It is emphasized in the replies that research is done as part of the teaching job, amounting to about one-third of teachers' full-time commitment.

The National Pedagogical Institute of Hungary, with a staff of about sixty, compiles and develops information and recommendations about curricula, publishes handbooks on methods, guides teachers and points the postgraduate education of teachers towards particular topics of research interest. Some 400 workers co-operate with the institute, with some fifty taking an active part in research or school experiments.

In 1986 a medium-term research development project entitled Research for Developing Higher Education'. The training of researchers in Hungarian universities is carried out as part of general education, but the training of institutional researchers is of postgraduate character. The Scientific Qualifying Committee of the Hungarian Academy of Sciences awards scholarships each year to young people who graduate from the universities or are already working as researchers. As many as about 200 persons (60 per cent in the pedagogical field) are given the opportunity, for three years, to prepare for research work in a given research centre. It is intended to offer options in curricula and methods while at the same time encouraging local innovations. It is acknowledged that so far only a small number of teachers take part in educational research, and that the impact of special measures and strategies for educational reform in education is 'sporadic' at the local level. The National Pedagogical Library and Museum is responsible for gathering and storing information; but owing to lack of resources it cannot run a popularization and information service.

In Poland educational research and development are also central instruments of government. The Educational Sciences Committee of the Polish Academy of Sciences plays a powerful role in the orientation of research, and the Ministry of Instruction and Education pays a major, direct role in defining the necessity for this or that research, and in the elaboration of plans concerning the education system. The same ministry, in collaboration with the Central Educational Inquiry proposes a five-year plan of scientific research on the basis of the scientific research plans of the different institutions of the ministry. This plan is finally ratified by the Ministry of Instruction and Education. There is a separate Ministry of Science and Higher Education, whose activities and concerns are closely integrated into the whole plan. The education faculties of the universities and other institutions of higher education contribute to research with a bearing on education, as do faculties of technical education, economics, medicine, fine arts, military science and physical education. Throughout, the emphasis is on careful co-ordination of all educational activities and research.

Bulgaria's Ministry of National Education mentions the T. Samofoumov Institute for Research on General Education founded in 1950. Specialization eventually led to the creation of the Research Institute for Vocational Education, and in 1978 of the Research Institute for Higher Education. There is a Research Institute for Suggestology which is concerned, for example, with 'discovering the reserves of one's personality in education, psychology and medicine'. There are frequent references to the need to improve motivation in education, and much research attention is given to this problem, not least in the unified polytechnical secondary school introduced in 1981. The Ministry's research institutes concern themselves with investigation as well as with training future 'cadres', with helping researchers to prepare their theses, and with in-service training for teachers.

The Bulgarian and Finnish reports make reference to the International Survey on Educational Attainment (IEA) research in which they participated. The Bulgarian reply goes further, referring to the Unesco network for co-operation in educational research and development in South and South-East Europe.

In Israel's centralized system the chief scientist of the ministry of education and culture is responsible for the identification of research needs and priorities in the education system. He co-ordinates and monitors all research projects being conducted in the ministry and those which are funded by it and is responsible for the dissemination and implementation of research results. The National Council for Research and Development finances research projects which do not clearly belong to any specific ministry while the Israel Academy of Sciences and Humanities allocates funds to basic research projects in various subjects, including education which do not clearly belong to any specific ministry. Foreign foundations also give much aid to institutions, groups and individuals engaged in research. The Ministry for Immigrants' Absorption has a unit for research and evaluation. Thus within an ostensibly centralized system there is much scope for the plurality of educational interests and pressure-groups whose resourcefulness in practical politics was referred to above.

Arrangements in some federal countries

In considering the multicultural and regionally diverse aspects of education and (consequently of research) in the USSR, with so many important responsibilities resting with the constituent republics, diversity can be sustained in its positive aspects while the national unity of purpose is nevertheless guarded. In countries with explicitly federal constitutions we see that, even with a much more homogeneous or at least more similar base in population and culture, federal devolution of responsibilities can introduce distinct new features. Among these are opportunities for radical divergence of local or regional policy together with the problem of obtaining complete or representative information.

Austria's Federal Ministry for Education, the Arts and Sport in some ways also seems to conduct its affairs as though it were responsible for a unitary system, and it publishes a national document *Educational Research in Austria*, covering the whole country. The federal ministry maintains a department responsible for collecting and distributing information; but significantly the Austrian reply to the Unesco questionnaire said that to answer its sections A and B it would have been necessary to contact directly about seventy different institutions. In preparation for the document just named, which is officially submitted to the EUDISED system of the Council of Europe, 'about 600 persons involved in educational research are contacted several times every year to provide any new information. All the data collected are computerized at the Austrian School Computing Centre in Vienna after revision and indexing with EUDISED descriptors'. *Bildungsforschung in Oesterreich* is circulated free of charge to all educational researchers, research institutions and to those who request it.

The Federal Republic of Germany displays a well-structured pattern of research and research institutions at the *Land*, or state, level, at the inter-*Land* level, and at the fully federal level. The *Lander* and the federal government award research assignments to individual universities on particular themes.

There is a 'funding plan' for the allocation of federal moneys for research projects according to criteria which are similar throughout the states, in particular a Federal-State Commission for Education and the Planning of Research. This funding extends to independent research institutions of countrywide significance and of academic interest to the country as a whole, to organizations that provide funding for research institutions, to research promotion organizations and to institutions with service functions for research, as well as to research projects of countrywide significance and of academic policy interest for the country as a whole.

The Federal-State Commission proposes some themes for research. Moreover, 'in 1957, the federal government and the state governments concluded an agreement on establishing a 'science council', to elaborate an overall plan for the funding of scientific and scholarly research on the basis of plans set up by the federal and state governments in the framework of their respective jurisdictions and, in this context, to co-rdinate federal and state planning.

Every year the Information Centre for the Social Sciences in Bonn carries out a survey of continuing or completed research projects in the social sciences (including educational studies) in institutions of higher education as well as at research centres and in research groups working outside the higher education sector. It is obvious how important this latter contribution may be, since much technological research of direct applicability to education (for example, in communications science and in the study of foreseeable occupational changes) could easily fall out of the reckoning of educational needs and trends if information were collected only about narrow 'educational research', as some other countries understand it. The Information Centre for the Social Sciences will, on request, provide the results of its surveys in accordance with the specific needs of users.

Research findings are widely publicized in the educational and general press, since education and arrangements for it have a high political profile in the Federal Republic of Germany, at every level. They are also made known in the in-service continued education which young secondary-school teachers follow after graduation, in in-service training courses and at educational conferences of many kinds. An international dimension is given by the research and publications of the *Deutches Institut für Internationale Pädagogsche Forschung* located in Frankfurt.

The replies from Switzerland give an astonishing picture of enterprise in educational research and its utilization for policy. The country is a confederation of twenty-five cantons, with four national languages and many distinct dialects.

Booklets and papers prepared by the Swiss Co-ordinating Centre for Educational Research give details of many activities and publications. One of them outlines 'Advanced planning in policy for research policy in science and education', emphasising its view that educational research should not limit itself to 'problem solving' in the short term; those commissioning research should accept that 'a certain amount of the global time of such research could be devoted to the clarification of questions about the philosophical, ethical, ideological, historical, and epistemological premises on which the specific research project is based'.

On the other hand, the Swiss Science Council and the National Fund for the Promotion of Science, in their concern for all branches of science policy, promote and underpin research in such a way as 'to avoid the danger of too strong centralization, and to bring regional interests to a successful outcome'.

It is worth mentioning that, as there is no ministry or federal office for education (a proposal for the establishment of one having been rejected three times by popular vote), the national organizations for educational information and research in some ways act like a 'moral ministry' or a 'conscience' pointing education in the way it should go.

Devolution and research: problems and possibilities

Comparative education textbooks throughout the world habitually use the situation in the United Kingdom as a case-study of extreme devolution.

Although there is a rich variety of educational administration, school organization, curricular experiment and research and innovation in the United Kingdom, there is very little direct connection between all that restless research and the formation of official policy, in Parliament, at the National Department of Education and Science (DES), or at the level of the local education authorities (LEAs). It is true that there have been influential 'commissions of inquiry' from time to time, which assess the current state of information and public opinion; but these are not research organizations in the real sense, and in any case political decisions about education are taken with little regard to research as such, even when that has sometimes been commissioned by those official bodies.

Educational research and innovation in England and Wales are often thought of as being initiated at the level of the school and perhaps even the individual classroom or teacher rather than at the level of central government or even the LEAs. In the decades since 1944, many LEAs have not only established research departments of their own but fostered educational research associations whose members are interested teachers. In addition, the teachers' centres widely established by local authorities as focal points for discussion and review of education have contributed greatly to the development of action research even during the years of financial stringency since 1970.

Many universities and other institutions of higher education also maintain teachers' centres for in-service development and research directed towards scholastic improvement or the solution of particular educational problems. (These centres are sometimes rather confusingly called Institutes of Education, a term more often used for much more official and conventional establishments for advanced, continuous studies.)

Of course, nearly all universities and many other institutions of higher education (including research and the preparation of theses) leading to higher degrees, as is the case in other countries. It is, however, worth while here to emphasize separately the great amount and variety of teacher-initiated and teacher-participant research voluntarily undertaken without financial recompense and without benefit of 'credit' (American-style) towards any degree. Naturally, of course, many teachers hope to gain promotion that way; but the pyramid of promotion prospects is too narrow and steep to account for most of that enterprise in on-the-ground research and innovation.

In the world picture it should be said, of course, that some other systems have comparable (though not identical) devolution of administrative responsibility at the official level), notably that of the United States; but close parallels to such extreme pedagogical autonomy at school, or teacher, level are hard to find, and in most of the rest of Europe they are lacking. In the present internationally comparative survey of research and policy decision-making therefore, that distinctiveness should be borne in mind.

The United Kingdom answers to the Unesco questionnaire indicate the main funding sources for educational research as the government departments mentioned above, together with the University Grants Committee (acting autonomously to disburse a government allocation of funds to universities) and some other official agencies acting for or with government departments. Of these, the Economic and Social Research Council is highly significant in its awards to research teams or individual projects, especially those undertaken in higher education. The important part played by some foundations is also acknowledged.

The main institutions for collecting and collating research are the National Foundation for Educational Research (NFER) originally set up on LEA initiative, the Scottish Council of Research in Eduction and the Northern Ireland Council for Educational Research. It is typical of the devolution and government shyness of intervention that although NFER annually receives a large DES grant, at least half its income derives from LEAs and such other bodies as teachers' organizations and universities.

In recent years the Manpower Services Commission (MSC), dependent on the Department of Industry, has come increasingly to the fore in support of education and training with a vocational/professional orientation.

The official reply says that: the DES commissions projects which are 'policy-related', that is, to guide and facilitate the implementation of policy decisions, improve the quality of the educational process in areas of policy concern or evaluate the effects of the implementation of policy decisions. The report also mentions the collateral support for educationally pertinent research by foundations, by universities, and by the Economic and Social Research Council; it specially points to facilities in several universities where workbench degrees in Educational Research are awarded. Nevertheless, most learning of research techniques is done 'on the job', with considerable guidance from university centres for teachers and from teachers' centres maintained by LEAs.

With regard to overall co-ordination, the official reply explains that: in the United Kingdom 'there is no central mechanism for determining research activity. This is in deference to the substantial independence of universities and non-government research institutions and agencies. Governmental research priorities reflect the policy priorities of the departments concerned'.

The scatter of responsibilities makes it difficult to ensure that research findings are properly disseminated. There is a vigorous and independent educational press, and ordinary journals of a serious nature give prominent (albeit often partisan) prominence to information about education, including research results important for policy.

The voluntary involvement of so many teachers in research and innovation often acts as a remarkably persuasive example for policy decisions, if only because that involvement shows the feasibility of policy and the readiness of teachers to implement innovation, a most important consideration for educational policy-makers. The pursuit of higher degrees in education is nearly always undertaken by teachers on a part-time basis (in the evenings, in university or polytechnic departments); to a limited extent teachers and principles may be seconded on a full-time basis to be members of a research team. Since teachers are employees of an LEA, such teacher involvement often derives from an LEA initiative in school-based research and/or innovation.

In the Republic of Ireland the general pattern of responsibility and support for educational inquiry is somewhat similar to that in the United Kingdom. So is the lack of control over the direction and utilization of research. It is pointed out in the Irish reply that, although the

Department of Education's Research Grants Committee sponsors investigation projects thought to be desirable for the improvement of practice and supports universities as centres of research, there is no central mechanism for research in education'. 'University Institutions and Teacher Training Colleges, though centrally funded, are independent of government'. The Committee has no control over that part of university, institutional and teacher-training funds used for educational research. Furthermore, 'there are no formal links between decision makers, educational practitioners and other government and non-government agencies'.

From the above it is obvious that developed responsibilities in education allow much scope for initiative, including freedom to investigate and experiment in ways that might be helpful to future policy development. Nevertheless, despite the prodding or encouragement brought into schools by inspectors, advisers, teachers' organizations and in-service training courses, there can also be indifference to progress among teachers and organizers of education.

There is a great problem in combining or making complementary two very desirable things in educational investigation and practical policy-making: (a) far-sighted and comprehensive overview by a government trying to rationalize and modernize education in the light of social need and technological/occupational change and (b) continuous on-the-ground appraisal of educational aims and practice by those who teach, those who learn and those who somehow employ the 'outcomes of education'.

There never was a greater need for research in education, with systematic consideration of its significance for policy-making (instead of lying around unused). Because of the nature of world changes, research information needs to be evaluated comparatively and discussed internationally, far beyond the present conceptual and political limitations of the main official international agencies which, despite their immense influence for good, are handicapped by representing governments. Any far reaching and far-seeing research today needs to be conceptualized, carried out and publicized far beyond the limitations so imposed.

The operation of research, and changes in relation to policy

There are, of course, many modes and many levels of research. Much adaptation of method depends on whether an investigation concerns only documentation, for example, repeatable experiments in laboratory conditions, fieldwork which is much less controllable, or social research in which the responses of human beings and whole communities become active forces in shaping the development (and therefore the methods) of a research programme.

When we come to educational research we face two further considerations: the length of time over which evidence is accumulated and results must be assessed extends over generations and the implementation of any educational programme encounters and embodies an almost incalculable array of choices and decisions. Some of these are clearly political or economic (on the part of the organizers); others are personal (and may be rational or otherwise). All depend to a great extent upon circumstances or opportunity. If there are discernible patterns of choice, these change greatly over time, often influenced by technological and/or occupational change, shifts in the means of communication, or ideological conversion. In education there is the further complication that education systems deliberately teach and perpetuate certain responses; yet those being educated may react unpredictably in the long run as they and their societies adjust themselves to the many alternatives in life.

In comparative studies of education, and especially in the comparative investigation of educational outcomes from reforms or planning, these observations need particular emphasis. In the attempt to win a kind of 'scientific respectability', an effort has been made by some to establish permanent ground-rules for a universally valid 'comparative methodology', as if there were some abstract science whose laws could reveal what should be done in certain investigations.

In fact, apart from a few simple rules about accuracy and verification, and the proper use of statistics, etc., we have little more to help research than an armoury of well-tried techniques or tools. Craftsmen and scientific investigators use the special tools required for the job in hand. They must not make a mess of that job by using tools (or techniques) developed for something else; nor must they be seduced into thinking that the techniques used so far can be successfully or even adequately used for a different set of problems.

Problems to be investigated, and 'the research job in hand', evolve rapidly with the changing times, if only because of educational evolution and changes in the notion of what is desirable or feasible. Nowhere is this simple statement more manifestly true than in educational research. Just as it is unwise to take a spanner to a computer, so it is foolish to use yesterday's rule-of-thumb techniques to cope with far more subtle educational diagnoses. We can see this most clearly if we look back over a few decades.

The great battery of intellectual and investigative techniques used in the upsurge of educational research during the 1950s and 1960s relatively simple, at least in measuring what was thought to be conveniently diagnostic in education. Most research projects were ultra-specific and limited in intention. Research methods mostly derived whatever justification they might have had from the intentions (or concepts) of the investigators and those who commissioned them, and from the inherited institutional framework within which they were operating. Surrounding and conditioning both the concepts and institutions of education was the technological/occupational context of those times. That context imposed particular requirements on education and suggested particular kinds of operation both in the teaching/learning situation and in research.

To put flesh on these abstractions, let us recall what educational researchers were trying to do at that time (indeed, some of them are still trying to do it) and let us assess whether those endeavors and techniques suit educational conditions and aims today.

During the expansive 1950s and 1960s (and to a lesser extent since, where there has been a 'population explosion' of particular age-groups or among groups of aspirants to some coveted form of education) there was the administrative problem of finding out which boys and girls could go 'as of right' (because of their supposed intellectual attributes) into certain kinds of schooling and who should go elsewhere. Devices (with 'research' to justify them) were elaborated to measure not only attainment but educability, according to the children's 'types of mind'- 'academic', 'technical', or 'practical'. These kinds of supposed competences were thought to be permanent characteristics, and it was therefore believed that measurements taken of them at a particular age would be reliable indicators thereafter. Research therefore concentrated on techniques to pick out such qualities in a way that would ensure 'predictability'.

It has since been pointed out by many (and practical experience has shown) that these suppositions are questionable, to say the least. They reflect not so much educational ideas as the social and occupational structure of those times. In place of the former pyramid of occupations and social classes, there is a whole new distribution of them, and the composition of the categories within them is changing fast.

The development of comprehensive systems of schooling has shown that individuals are not necessarily 'able' or 'backward' in all respects, that they can develop educationally desirable 'readiness' and motivation at later stages, and that in any case their personal educational profile shows peaks here and depressions there. Furthermore, many of the qualities and attainments most desirable in an 'educated' person are not always taught or encouraged in schools. So the selective processes which have been stigmatized elsewhere as an example of administrators shovelling 'bodies into boxes' (i.e. the schools already available) were educational beds of Procrustes: they lopped off inconvenient extremities and overstretched some expectations. A great many educational desiderata now widely recognized were left out of the reckoning. Learners were made to fit the framework of schooling. Quite apart from social injustice, this practice was reprehensible from the viewpoint of rapid technological change as well as intellectually, since many of the most desirable qualities had not been cultivated or looked for in schools and people. Educational research did not point to any such omissions, nor had techniques been evolved to discover them.

Since that time the context of personal and educational needs surrounding the schools has changed further, and research needs have obviously changed as a function. In those earlier decades, mathematical or statistical expertise was so highly prized in research that many people actually became 'professors of education' by virtue of that competence. Whatever was measurable in schools and personality was 'real', and the key to educational understanding. Researchers spoke of 'input, process and output' in education as though it were a conveyor-belt. 'Participation' in education meant simply being enrolled, as we see from contemporary Organisation for Economic Co-operation and Development (OECD) and other statistics. Educational effectiveness was assessed in terms of certificates or success in the rites of passage to jobs. Few research workers seemed to think much of real educational effectiveness in the sense of acquiring the ability to go on learning throughout life, to branch out into other fields and to explore the unknown.

Needless to say, even mathematically based-investigations could and did contribute greatly to research, linking educational research to the empirical enquiries being conducted in the social sciences. Many of the techniques thus acquired proved useful later in more sensitive investigations. But new techniques of investigation have been called for, not only to explore the hidden qualities neglected in so many previous appraisals and to take account of the longer time-scale as well as the broader spectrum of education, but also to ensure much more participant research, that is, research incorporating the insights and experience of those in the schools, learners as well as teachers.

Two good examples can be offered here of neglectful oversight in educational research. During the impressive surveys conducted by IEA (first published in 1967), the success of Japanese students in mathematics was first accounted for in terms of hours spent, qualifications of teachers, methods used, and so on. The contextual importance of being successful in mathematics at the particular stage of school life in Japan (the highly competitive 'suicide year' preceding transition to a higher school that would determine life-chances permanently) was at first overlooked.

Again, when two colleagues and I were conducting a three-year international analysis in five Western European countries of the social and educational implications of rapidly increasing enrolment between the ages of 16 and 20, teachers and students almost everywhere told us that nobody had ever asked them how they perceived the education they were involved in, or what their experience of it had been. Yet when the results of this investigation were analysed it was found that students' perceptions very closely matched the educational opinions of the countries' leading experts, and their recommendations also matched those of experts looking to the future. However, there was often a discrepancy between these views and those of intermediate practitioners, such as teachers and administrators. Revelations of such educational incompatibility, and other pertinent details, would by themselves have justified the investigation, which was put to practical use by the authorities in in-service conferences for teachers and inspectors.

In any case, the results obtained from participant research of this kind are very important in giving the 'inside view' which is at the very heart of education; and special techniques for getting that information on the ground therefore had to be developed and used in novel ways. The researchers were in fact told by local investigators that such information was unobtainable; yet it was not only successfully published in two reports in 1974 and 1975 but has been acknowledged by the Council of Europe as introducing new concepts and new terminology for post compulsory education.

Changes in education's context call for much autonomy in the learner, and competent responsibility for his lifelong learning in co-operation with others, as well as with the aid of previously unthought-of learning resources. Much of the immediate future of learning can be surmised; but even that is very different from recent learning conditions and the opportunities of a decade ago. In truth, the long-term future of learning is unknowable, as everyone can see and as the youngest adults can see most clearly. Few if any education systems have taken real account of these conditions, and practically nobody has taken real account of the average young adult (about the age of 16, or between 16 and 25) as the typical member of society by whose criteria of changing need the requirements of today's education must be measured.

In marked contrast to this new direction for research, we may observe that many, if not most, of the replies returned within the necessarily limiting confines of the inquiry seem still to reflect the scholastic categories and interests of inherited systems. To be fair, quite a number of them list 'new information technologies' as a priority interest among research topics; but that interest seems mainly to be directed towards these technologies as pedagogical adjuncts (as audio-visual aids have been), or else as fields of expertise in which young people can be prepared for the job-market.

Acceptance of traditional categories, hierarchies and evaluations of education seems particularly marked in those countries with a centralized and pyramidal organization of school administration and authority. Thus educational research and the priorities within it are seldom portrayed as research into the urgent requirements of 'education for uncertainty'. None the less, what some observers have called '*l'éducation parallèle*' and others 'extra-curricular education' is of vast importance in reinforcing, negating, or rounding-out whatever is experienced in schools. It is therefore a pity that much officially sponsored research lets these potential fields of investigation lie fallow. Fortunately, independently minded investigators, many of them in the social sciences outside the field of professional education, are well aware of the educational challenges and opportunities of new technologies. Replies from ministries of education seldom point to such research.

Priorities mentioned in the replies

Among the priorities mentioned in the national replies, several recur constantly. They are mainly to be expected, such as the improvement and further spread of educational opportunities, especially for the disadvantaged and rural dwellers, improving the efficiency of the system's working and the competence of teachers, modernizing curriculum content and methods, and so forth. Many mention (as stated above) the use of computers and other such aids to learning, usually in terms of preparing teachers to use them but sometimes also in terms of use by students.

More significantly, some countries acknowledge the need for more educational research. Often this need is expressed in relation to the psychology of learning more relevant to life outside (and especially at work). Sometimes it is made to refer to improving the motivation and commitment of learners. In a significant number of reports there is mention of a 'youth problem' which appears to extend beyond classroom indifference or indiscipline. Poland, for example, has a Research Institute for the Study of Youth Problems and has organized international conferences on this theme.

An important group of replies touch on the need to make educational research itself more relevant to the actualities of education. Hungary in particular mentions the disbanding of a professional research team and its replacement by teacher-researchers combining their university or school teaching with continuous research 'as part of the job'. On the other hand, many replies indicate that teachers play little part in research, and some say that 'as yet' teachers are hardly aware of research. Some countries, as we have seen, carefully collect, correlate and computerize research findings so as to make them available in research centres, libraries and publications. These publications in many cases are widely distributed. Nevertheless some of these countries so efficiently documenting their system and its achievements look forward to improvements in the distribution of their information and its use in the schools. Research in that direction is sometimes sought, often so as to reinforce the initial or in-service education of teachers.

In contrast to such efficiently organized countries as those just indicated, some seek better co-ordination of research collection and evaluation, especially where much research is undertaken spontaneously and independently of government commissioning. They therefore mention this aim as a priority.

Among the priorities listed there is hardly any mention (or even hint) of the need for research that might improve feedback from those working in education or receiving it, or of research leading to active and responsible participation in the process of policy-making. Several Eastern European reports make a strong point of reinforcing teachers' and popular participation in the implementation of policy, however, and of investigations or experiments leading to that end.

At several points in this chapter, reference has been made to the importance of developing a climate of opinion in favour of educational expansion and reform, and of building up public competence to participate actively in that process. Clearly the apprenticeship to this must begin in school, and some countries implicitly recognize the fact by encouraging responsible autonomy among young learners; but there is a surprising lack of emphasis on the need for such an apprenticeship and hardly any indication of the need for research into its requirements.

Another omission is that of reference to the need to prepare adults for changes in their life-situation (for example, at work, on promotion to responsible positions in their career or in society, or in facing the challenges of marriage break-up or job take-over, and so forth).

The discussion of my original document at Garda revealed that some of the participants there hoped that future educational research would pay more attention to some current problems of great topical importance. Among these were those of differences between regions in educational need, provision and further opportunity, as well as those between different population groups (especially the underprivileged or otherwise disadvantaged). Research was also called for on improving opportunities for girls and women. In this connection, but not exclusively of concern to women, attention was drawn to the need to investigate and improve provision for 'returners' after varying periods away from formal education and training, notably because of job-changes and massive shifts in the structure and location of paid employment of kinds that are personally fulfilling and socially desirable.

Educational research and decision-making in Latin America and the Caribbean.

Gonzalo Gutiérrez

Replies were received to ten of the questionnaires sent out to Member States: Argentina, Costa Rica, Cuba, Chile, El Salvador, Guyana, Peru, Mexico, Suriname and Venezuela. The material gleaned from these replies has been supplemented with data from the Latin American Documentation Network in the Field Education (REDUC), a study made by a REDUC working party for the Regional Office for Education in Latin America and the Caribbean (OREALC) and recent analyses of related information drawn up within the framework of REDUC.

A historico-thematic outline of educational research in Latin America

The 1960s, marked by a tendency for educational studies to adopt an economic approach, has been termed the planning era. By the 1970s, the thrust of this approach was strengthened through a radical critique of the school and through studies, many sociological in character, which insisted on placing educational problems within a social context characterized by poverty and by economic, political and cultural dependence.

The distinguishing feature of the 1970s was a preoccupation with the development of local level education programmes designed to break away from this dependence and to obtain better living conditions. As a result, educational research became linked with development programmes, often of an anthropological or ethnographic nature. The planning era has the most to offer in terms of data on the links between educational research and decision-making.

The era of planning in education

Apart from the isolated cases of educationists carrying out research and publishing their results, usually to obtain degrees at foreign universities, the development of education in Latin America and the Caribbean was linked to tasks engendered by educational planning. When Latin American education ministers in 1957 signalled the need for planning the educational process, they drew the attention of the whole world to this necessity.

The process received new impetus when development plans became a prerequisite for the authorization of funds channeled through the Alliance for Progress. The same thing happened in 1967 when planning tasks were emphasized at the meeting of Latin American presidents. For its part, the Organization of American States (OAS) laid down its Educational Planning Programme (PREDE) at its meeting in Maracaibo in 1978. Thus, it became essential to obtain information on the educational process and its various components, and to analyse problems and their causes. In the same way, the establishment of planning departments was paralleled by the growing priority allocated to research.

During the initial phase, up to the 1960s the methodology employed in works on educational planning tended to approach the subject in some countries from the point of view of the curriculum and in others from the point of view of administration.

The conference held in Santiago de Chile by Unesco in May 1962 on Education and Social and Economic Development gave impetus to planning and henceforth, studies took on an interdisciplinary character with the participation of educators, economists and sociologists and the spread of a planning methodology for human resources. Education plans began to emerge as an integral part of national development plans. Proposals were frequently put forward for educational reforms, but few were implemented.

Fernandez and Aguerrondo (1981) analysed Latin American education plans in a work which considered twenty-seven documents from twelve countries. This study, conducted within the framework of the Project for Development and Education in Latin America and the Caribbean (DEALC), concluded that the emphasis in the educational planning process focused on so-called 'book plans', the products of which were far from being useful instruments to develop and transform education systems. Seven priority areas for research in the planning era are described below.

Research into performance

The performance of the education system was a priority concern of planning researchers. One of the most conclusive studies in this regard, which monitored an extensive sample of pupils, analysed the factors which affect student performance and subsequent placement in higher education or the labour market. Wide differences resulted from the degree of urbanization, television, the availability of textbooks and socio-economic level.

A study conducted for the (ECIEL) programme of Joint Studies on Latin American Economic Integration analysed data on the factors condition the amount of education received by people in the various countries of the region. Education was seen to be self-generating, (Vasquez and Belloni, 1975). Beirn et al. (1972) analysed Latin American data on drop-out, most of which pointed to the phenomenon as a voluntary individual decision. Very few studies referred to the structural characteristics of the school and fewer still to the active role which this can play in discouraging students from continuing their education. Salcedo et al. (1976) confirmed the influence of socio-economic factors on school performance, basing their conclusions on data from Paraguay. They stressed the precarious situation of rural areas in particular as a result of the shortage of schools.

Research into educational reform

Confronted with the paradox of a rapidly expanded education system quite inefficient in achieving its objectives, the Latin American governments studied a variety of strategies for change. Planning departments drew up various proposals for educational reform. Analysis of such proposals indicates their diversity. Differences in ideology and methodology resulted in conflicting strategies being applied, even within a country.

The various educational reforms proposed in the countries of the region have been investigated. Bizot (1976) produced a synthesis of theory and practice in educational reform in Peru, focusing on its relation to the socio-economic and cultural condition of the country and to the other reforms undertaken by the government.

The 1965 education reform in Chile has also been studied. The antecedents and objectives and its achievements up to 1970 have been analysed by Acosta (1974) (177 titles listed). This reform was an interesting case of planning, marked by the joint work of planners and politicians. A wider analysis of educational planning research, going beyond the reforms or 1965, identified 8,800 related references. The 600 works covered constituted a matrix for the analysis of historical periods and aspects of the system of education (McGinn and Schiefelbein, 1980; Schiefelbein, 1981)

Other educational reforms initiated in other countries of the region also led to noteworthy research. The introduction of educational television in El Salvador, for example, formed the object of numerous studies (Speagle, 1972; Hornik et al. 1973; Werthein, 1978). Educational reform action in Panama, especially with regard to the 'productive school', were analysed in various documents issued by the Ministry of Education (Panama, 1975)

There were also a number of educational reform experiments in various countries that gave rise to descriptive studies. Tamuo (1977) analysed the principal characteristics of 'educational nuclearization' and described experiments in Colombia, Guatemala and Peru. The Central American Education Co-ordination System (CEC) made great efforts to study this mode of educational reform (CEC, 1977). Manrique and Tello (1975) examined the nuclearization of education attempted in rural areas of Peru and certain forms of educational nuclearisation in Colombia were analysed by Bolivar et al. (1972). The Ministry of Education of Costa Rica also devoted a number of studies to the implementation of educational nuclearisation experiments in that country (Costa Rica, 1976).

For a synthesis of the educational reform proposals of the countries of Latin America and the Caribbean, we may look to the study carried out by Fernandez and Aguerrondo (1981/82). Proposals are divided into three types: structural reforms (Panama and Peru), general reforms of the system (Argentina, Costa Rica, Chile and Venezuela) and educational changes of a less extensive character in almost all the other countries of the region. Despite differences in scope and origin, the proposals show similarities of tendency and content. In general, educational reforms in Latin America and the Caribbean are defined in terms of theoretical-normative principles rather than of a rational approach. Such proposals flourish best in the offices of planners and technocrats, and emerge in print after little or no consultation or participation. All reform proposals start out with normative expressions referring to aspects of structure, declaring, for example in the majority of proposals that democratization is one of their most important objectives. They have little to say with regard to the central problems that affect the relationship between education and society, such as the incorporation of the rural poor (especially indigenous populations), subsistence living in the cities, internal and external migration and the inability of the education system to retain pupils.

Research into the financing of education

The financial efforts made in the field of education by the countries of Latin America and the Caribbean were studied by OREALC (1974) in an analysis that showed that education was a large and growing factor in the finances of all the Latin American states.

Describing the situation in the private sector in Bolivia, Colombia, Mexico, Peru and Venezuela, Munoz and Hernandez (1976) noted a diminution in investment and a divergence between the opposite poles of the system: the privately run primary and secondary schools, generally connected with the Catholic Church, tended to offer more to the poorer sections of the population whereas private institutions in higher education were securing their ties with those areas of the economy requiring the administrators that they were training.

Mention must be made of the series of studies presented at Inter-American Development Bank (IDB) seminars in Washington (1976), San Jose (1980) and Mexico City (1982) (Brodersohn and Sanjurjo, 1978). In a summary of the Washington seminar, Urqidi (1978) noted that spending on education in Latin America was neither under systematic control, nor subject to economic and social planning objectives. The conclusion was that spending on education in the medium term was a political rather than a planning decision. Castro (1979) conducted a study of vocational education in the region, relating sources of finance to programme performance areas and the type of training offered. He discussed the redistributive nature of financial policies in this branch of education, the social origin of students and certain signs of inefficiency in the programmes (drop-out, abandonment of jobs and cost-benefit ratios of establishments).

Research into teacher-training

Although there is abundant bibliographical information on training teachers with regard to the specific needs of individual countries of Latin America and the Caribbean, regional analyses on this topic are few. Among the more comprehensive studies have been those of Lorenzo (1969) and Distrans (1972). Avalos (1981) considered that success had been achieved by in-service training programmes to upgrade personnel in different countries, often in connection with educational reforms. Beyond formal training, however, the teacher was faced with the challenge of the changing requirements of education in Latin America.

Research into education and employment

During the period under consideration, studies into education and employment stemmed primarily from the Regional Programme for Employment in Latin America and the Caribbean (PREALC). The information obtained from this research programme constituted not only an analysis of the situation for each country but also a first and virtually unique effort to produce a comparison between countries of the region. Schiefelbein (1978) carried out a study of family surveys in ten Latin American cities situated in Nicaragua, Dominican Republic, El Salvador, Paraguay, Honduras and Chile. In every case, there was a positive correlation between education and employment. Workers with higher levels of education were more active in the search for employment and had greater bargaining power.

Other PREALC studies (1976) showed that the economic dynamism observed was not being translated into an improved employment situation. Industry was not generating jobs at a rate sufficient to absorb skilled and migrant labour.

Research into professional and vocational training

Research into education and employment from the viewpoint of human resources and studies into ongoing education within a global perspective lay behind the efforts exerted in Latin America and the Caribbean with regard to professional and vocational training. In every country, specialized institutions are pursuing programmes in this area or are concerned to improve the design and methodology of courses and to evaluate results. A significant role has been played by the Inter-American Research and Documentation Centre on Vocational Training (CINTERFOR) in classifying data obtained from all this research and supporting methods of evaluating programme implementation (CINTERFOR, 1969). This initiative was reproduced in the different countries of the region so that there is a relatively abundant literature on the evaluation of professional and vocational training programmes in Latin America and the Caribbean (Brazil, 1973; Venezuela, 1972; Bolivia, 1976).

One theme subjected to particular scrutiny was training oriented towards the small or medium enterprise as a potential source of employment for the unemployed and school-leavers. In a study conducted for CINTERFOR, Acevedo et al. (1977) showed that development strategies based on the high technology sector tend to favour training oriented towards this sector and neglect training manpower for medium and small business, leading to higher unemployment, particularly among young people.

A study by Oliveira (1978) into professional and vocational training in terms of its relationship to employment policy and human resources, indicated that an important element of programmes is the provision of information on manpower.

Research into post-secondary and higher education

As with the rest of the system, higher education in Latin America and the Caribbean has undergone considerable expansion in the face of which it was subjected to programmes of review. Tunnerman analysing these in a paper presented to the Latin American and Caribbean Conference on new forms of post-secondary education (LACFEP,1976), noted a clear tendency to reorganize academic activities in the universities. The education process at tertiary level became increasingly technical and a growing emphasis was placed on postgraduate courses. Though in experimental form, university extension course were given greater attention as a means to open access to higher education. The perspectives opened up by this quantitative transformation of Latin American higher education were studied by the DEALC project (1981).

Studies of higher education also refer to the crisis that has to be faced. According to one set of studies (Rama, 1982), this crisis is marked by the relationship of higher education with the governing power, the social classes and the labour market. There is a growing demand for higher education among the middle classes owing to stagnation in industrial employment and the relatively narrow band of highly paid prestigious jobs, and the broadening of higher education to include a wide range of possibilities with concomitant differences of academic level has led to the emergence of first- and second-class universities, nullifying the democratization brought about by expansion. Development plans, therefore, had to lower their sights.

The opportunity broadening their intellectual influence was squandered by the universities which fell into demagoguery or abandoned their true mission (Millas, 1980). The possibility of resuming this mission was analysed in a series of papers presented at the Latin America seminar on Projections for Development in Latin America and its Incidence in Higher Education (Schmerz, 1975). In a comprehensive analysis of the same possibility, Schiefelbein and Solari (1975) suggested that social pressure for higher education would necessitate a search for alternative forms and that it would be difficult for the universities to continue growing without profound structural modifications, such as open universities and a variety of lower-level universities capable of offering the opportunity to study to graduates of the secondary system.

The problem of research into the university itself as the basis for scientific and technological development has been studied. Tunnermann (1980) carried out an historical analysis in which he identified obstacles to research within the university.

In Latin America, there has been insufficient co-ordination between the productive sector, the scientific-technological infrastructure and the government. Yet such co-ordination is essential in order to inspire scientific research policies oriented towards the development needs of the countries of the region. The Latin American seminar on the Role of Science in Development (Vina del Mar, Chile, 1977), examined the various mutual interrelations between science and the university (CPU, 1977) and underlined the crucial role of the university as the driving force of science and technology. It was noted that demand for full-time research personnel tended to arise in relatively advanced stages of economic development. Before this level was attained, it was not easy to interest industrialists in collaboration with the university on research projects.

The transition from secondary to higher education was another theme to occupy researchers. According to Unesco (1976, p. 114), information at regional level is insufficient to establish the extent to which graduates of the secondary system are incorporated into the first year of post-secondary education. The report, however, indicated that 62 per cent could be considered a valid measure for the period 1968/69. The same topic was also dealt with by Schiefelbein and McGinn (1975). the aim of giving higher education a role more suited to social necessities has engendered many studies and innovative projects, especially including open universities.

Critique of the school

Criticism of the institutional nature of education was present even at the time when the relationship between education and development was viewed in a more optimistic light. Such criticism, however, made itself heard when developmental aims were seen to have failed. This led to a series of studies on the relationship between research and the socio-economic context previously analysed (Brahm et al., 1986) when it was pointed out that studies with this orientation looked for answers to questions related to such topics as: (a) the dependence of the education system with regard to social and economic inequalities; (b) the values which inspire and advance the education system: (c) the vertical integration and centralization of educational administration; (d) the dissociation between what is taught in school and what is required by society; (e) and the lack or absence of initiatives from the school in respect of educational forms directed towards community organization, consideration of communal problems and the search for solutions to them. In this area, critics have insisted that the school serve as a function of social replication. The works of Bourdieu and Passeron (1970), who discussed the replicatory function of the school, and of Althusser (1974), who defined education as part of the ideological apparatus of the state, had a profound effect on educational thinkers in Latin America. Vasconi (1974) was also important. A representative selection for this line of thought may be found in the studies edited by Labarca (1977) under the title *La educacion burgues* (Bourgeois Education). Such was the message of Illich (1971) and Reimer (1971) who published books in the same year based on their experiences at the Intercultural Documentation Centre at Cuernavaca, Mexico. They further summarized their ideas in a number of later publications (Illich, 1971//72; Reimer, 1971/72). Kallenberg (1974) assembled 200 studies on the topic, producing at the same time a synthesis of Illich's thought and of criticism brought against him. Within DEALC, Nassif (1981) drew up a synthesis of the doctrine and criticism of 'de-schooling'. According to Illich and Reimer, the solution lies in 'de-institutionalizing the school' and 'de-schooling society'. Service networks or organizations would be set up for those who require education.

Criticism of Illich's ideas was well expressed by Gintis (1972). Hanoum (1973) suggests that Illich's criticism of the school is made in a social vacuum from which the impoverished masses of Latin America are absent. Nassif (1981, p. 108), on this subject, concludes that without ruling out any number of 'learning webs', there is a need for teachers and schools because, as things stand, the descendants of the Mayas, the Aztecs and the Incas, the inhabitants of the villages, the mountains and the plains, those who live on the margin in the great cities of our extended Latin America, possess no form of 'conviviality' but the silence of poverty.

Non-formal education

The term 'non-formal education' is used here in the sense proposed by La Belle (1986): educational programmes at the local level for poor adults. Studies of diverse kinds deal with concrete proposals to tackle the educational problems of poor people.

Mention must be made of the ideas of Paulo Freire on 'liberation education' (1970; 1970-72; 1970-73) since his approach has animated some of the main areas of non-formal education. Friere set up an opposition between his 'liberating' and the 'banking' (*bancaria*) education propagated by society, which he rejected. The influence of Freire's thought and work has reverberated throughout Latin America, the Caribbean and the rest of the world, particularly the developing countries. Many research projects have been generated as a result, the majority of them dealing with non-formal adult education programmes.

In 1974, Unesco's International Institute for Adult Literacy Methods published a special issue of the review, *Discussions sur l'alphabétisation* (IMMAA, 1974) dedicated to Freire's thought. Apart from a contribution by Freire himself, this included a strongly critical analysis by Griffith, and others in his defence by Furter and Bugbee. There was also a study by Smith on Freire's influence in the development of projects based on simulation games, a typically Latin American method whereby the raising of consciousness is stimulated through the creation of situations exemplified in collective games of various kinds. The growing use of this method has led researchers to study its design, implementation and results. The Ministry of Education in Ecuador, for example, in association with the University of Massachusetts, carried out studies and published results on the methodology of design and implementation of simulations (Ecuador, 1976). Another synthesis of experiences with simulation games in adult education was carried out by Silva (1982), based on his own work at the Centre for Educational Research and Development (CIDE) in Chile. He assigned a threefold function to the use of games in adult education: (a) motivation and organization of participating groups; (b) investigation and diagnosis of the physical and social environment; and (c) conscious awareness of the significance of the experience by participants.

Distance learning, particularly using radio to bring educational programmes to adult learners, has been of considerable interest in the field of non-formal education in Latin America, and research has generated a flow of information which has been classified in a number of works from within and outside the region. Acevedo and Gutierrez (1975) noted thirty programmes of education by radio. Another study indicated that the Latin American Association for Education by Radio (ALER) consisted of forty-one institutions producing and disseminating educational programmes by radio in seventeen countries of the region while McAnany (1975) estimated that some 250,000 people follow educational radio courses in the region, predominantly individual listeners, particularly in the countryside.

The field of adult literacy and education has produced a considerable number of studies. Over ten years ago data from the Regional Centre for Adult Education and Functional Literacy (CREFAL, 1978) noted 226 projects. The public sector appeared to be the most involved in research. Few international organizations were engaged in research on adult education and their efforts were concerned with evaluation and regional diagnostic studies. Based on De Schutter et al. (1980) CREFAL's data drew up a classification of adult education research in terms of origin, topic, orientation and method. They concluded that adult education programmes tended towards the training needs required to assist the employment of marginal groups. Lack of systematisation in programmes surveyed appeared to be due to lack of theoretical orientation. On the whole, programmes did not evidence any close connection with the social processes of the communities into which they had been introduced. Research into adult education was carried out by the same bodies responsible for the development of programmes. Despite innumerable campaigns for adult education in Latin America, solutions have been unsatisfactory. Programmes carried out by government bodies have been confined to making up for the deficiencies in formal education. Participatory actions and experiments relating to them had not so far been of any great methodological consequence. To account for the lack of systematicity, Vio (1982) noted conflicting currents responding to different theoretical conceptions and seeking different goals with the result that programmes might be divided against themselves. the CREFAL study, moreover suggested that the priorities put forward by specialists might not match those that exist in reality.

CREFAL's country reports provide data on adult literacy in certain countries which can be supplemented with other country analyses, such as OREALC (1974) which deals with the Brazilian literacy movement (MORBRAL)

In response to accusations of naivety, protagonists of the liberation approach arrived at the theory and practice of 'popular education' which stressed the class basis which must underlie it. This approach saw itself as critical, organic and active (Garcia-Huidobro, 1980; 1982; Gajardo and Myers, 1983).

Analysing the political nature of popular education, Fernandez (1975) who suggested that the common denominator of the various programmes being implemented with this approach in Latin America was the search for an organization of the people for the benefit of an education through action. Jara (1981) referred to popular education as the educational dimension of political action and stressed the fact that the point of departure for the development of consciousness is personal action.

Education research output and its applications

Output

Analysis of replies to the Unesco questionnaire

Bodies carrying out educational research. Replies from ten countries show 215 organizations of various kinds involved in this task. The overall picture is shown in Table 1. It is apparent that different criteria were used in the replies: some refer solely to the public sector (e.g. Mexico); others treat university organizations differently, either as a whole or as separate units (such as Chile and Venezuela).

Educational research budget. Responses to this item were quite varied: some gave a percentage of the national budget, others a percentage of the ministerial budget, others a cash figure. In general, the amount was low.

Criteria for the allocation of educational research funds. On the whole, the replies between research projects and established needs.

International of foreign agencies participating in the field. It would appear from the replies that there is considerable educational research activity being carried on in the region by international and foreign agencies.

Existence of programmes for the formation and training of researchers. Thirty-seven programmes are noted, most within universities.

Existence of a central mechanism for educational research. Costa Rica, Cuba and Venezuela indicated the existence of a central mechanism for educational research. It was said to be a branch of the Ministry of Education, carrying out functions related to the proposal of policies and the coordination of activities in this domain.

Existence of mechanisms to assess educational research and its impact. The only countries to reply affirmatively were Costa Rica, Cuba and Chile.

Existence of measures to promote educational research. Costa Rica, Cuba, Chile, Mexico and Venezuela indicated that measures to this effect were being studied by public sector institutions. Argentina, El Salvador, Peru and Suriname replied in the negative.

Table 1. Nature of research bodies

Country	Organization			
	Public	Private	University	Total
Argentina	6	2	2	10
Costa Rica	1	-	-	1
Cuba	1	-	12	13
Chile	2	2	4	13
El Salvador	-	-	6	6
Guyana	1	-	1	2
Mexico	28	-	-	28
Peru	1	16	35	52
Suriname	1	-	-	1
Venezuela	2	9	83	94

Supplementary information

A study of papers analysing educational research carried out in Latin America provided additional data complementing those deriving from responses to the questionnaire, particularly qualitative aspects.

Despite numerous research reports and innovations in education, there are gaps in certain specific areas, such as rural education and the effects of migration from the countryside to the town. The coverage of education systems may have improved, but little has been done to study child performance and alleviating problems faced by children in their progress through the school (Schiefelbein and Garcia-Huidobro, 1980).

From country to country, there are considerable differences in research output, both quantitative and, at times, qualitative. On the whole, countries have not developed lines of inquiry with clearly developed priorities. The data bases that researchers rely on are often inadequate, resulting in a flow of information both irregular and difficult, with evident consequences for the quality of research. Another feature is the difficulty of obtaining bibliographical information, though this situation is beginning to improve thanks to REDUC. Available research capacity varies from country to country as a function of training facilities and the official priority assigned. Although it may be improving, official concern has yet to be translated, in most countries, into a structured institutional support covering the various stages of research: formulation, development, publication and dissemination of results (OREALC, 1982).

Nevertheless, educational research output continues to grow, with a clear tendency to move on from descriptive studies to give greater emphasis to such aspects as the evaluation of the performance of the education system and alternative processes (ICASE, 1982). A study analysing the development of research output in Latin America between 1936 and 1981 (Eggington and Koppel, 1983), summarized the main tendencies: (a) countries and sub-regions which have hitherto produced little or no educational research are beginning to make their presence felt; (b) more is being published about Latin America in languages other than Spanish and Portuguese, which would suggest a greater foreign interest in education in the region; (c)studies are appearing more frequently on the sociology and financing of education; (d) many studies have been produced on higher education and not enough on the primary level; (e) descriptive methodology is widely used; (f) experimental studies are virtually non-existent; (g) historical research is in decline; (h) and the output of regional studies and bibliographies has grown.

Applications

Analysis of replies to the Unesco questionnaire

Existence of national system for educational information. The picture here is satisfactory. With the sole exception of El Salvador, all the countries stated that they had a system or network for the dissemination of educational research findings.

Existence of inventories of priority research projects in education. Costa Rica, Cuba, Chile, Mexico and Venezuela replied affirmatively. Argentina, El Salvador, Guyana, Peru and Suriname said that they had no such inventory.

Main ways of disseminating research findings. Almost all countries indicated some methods of dissemination. The situation on a country basis is shown in Table 2.

Table 2. Dissemination of research findings

	Method			
Country	Publications	Congresses	Media	Libraries
Argentina	7	17	3	3
Costa Rica	7	5	1	1
Cuba	5	5	5	-
Chile	4	2	2	3
El Salvador	3	-	-	1
Guyana	-	-	-	-
Mexico	4	1	1	-
Peru	4	1	1	-
Suriname	2	-	-	3
Venezuela	4	3	-	-

Application of measures or strategies to promote a greater impact of educational research information and findings on educational change and planning. Countries reports under this heading are as follows: Argentina (assessment of changes introduced, Cuba ('family plan' for pre-school children cited), Chile (Centre for Pedagogical Improvement, Experiment and Research (CPEIP) indicated as responsible for the process of educational reform), Mexico (recent reforms in plans for pre-school and primary education cited), Suriname (new teaching methods on an experimental basis) and Venezuela (the Planning Office receives information on behalf of the Information Division).

Supplementary information

In a study analysing the state of educational research in Colombia, Toro and Lombana (1980) indicated that the public sector was showing signs of awareness of the need to use educational research to inform policy in this field. There was, however, no evidence that this had been put into practice. Central decision-making appeared to ignore regional and local differences. Reports on research findings were not widely disseminated. Such documents were not produced in permanent form, for the most part, and few articles were published in journals. This observation applies to the form of presentation of research reports throughout the countries of the region (Garcia-Huidobro and Ochoa, 1978). Lorenzo (1975), however, noted that the majority of countries have documentation and information centres subordinate to their ministries of education.

In Argentina, the National Centre for Educational Documentation and Information was set up in 1960 and has since held three national conferences in this domain (Mendoza, 1968; Santa Fe, 1974; and Córdoba, 1975).

In Bolivia, attempts to establish documentation services within the Ministry of Education were made in 1940, 1950 and 1970. Information activity directed towards the improvement of education was also carried out on a large scale by the Centro Pedagogico y Cultural Portales de Cochabamba, a private body set up by the Bolivia Foundation in 1968.

In Brazil, the National Institute for Pedagogical Studies (INEP), established in 1937/38, is responsible for the direction, co-ordination and dissemination of educational research.

In Colombia, the documentation Centre of the Ministry of Education was created in 1956 to provide technical services for planning.

The Pedagogical Documentation Office was set up in Costa Rica in 1964 as a section of the Planning Office within the Vice-Ministry of Education. It was originally intended that this office would become a national centre for educational information and documentation, but this did not happen.

Systematic work on educational documentation began in 1956 with the creation of the Pedagogical Documentation Centre assigned to Unesco's Regional Office for Latin America and the Caribbean, in 1960, a Centre for Pedagogical Documentation was set up within the Ministry of Education and, in 1971, the National Centre for Pedagogical Information and Documentation was founded, providing links between provincial, regional and district centres.

The first government institution for educational information in Chile was the Pedagogical Museum founded in 1941. From 1962, educational information activity was carried on within the Educational Inspectorate. A plan was set in motion for the establishment of a national information system co-ordinated by the Centre for Pedagogical Improvement, Experiment and Research.

Serious efforts have been made to set up a national educational information system in Ecuador but this goal has yet to be attained. Nevertheless, a Centre for Pedagogical Information and Documentation has been set up within the Ministry of Education.

In Guatemala there has been a Centre for Educational Documentation and Information within the Integrated Educational Planning Office since 1963.

In Haiti a Documentation Centre was established in 1958 under the General Directorate for National Education and in Honduras there has been a Documentation and Archives Section in the Integrated Educational Planning Office.

Jamaica has an active Documentation Centre within the Faculty of Education of the University of the West Indies.

An educational information service in Mexico goes back to 1916 and the establishment of the National Museum of Pedagogy. Since 1965, the task of co-ordinating the national network for educational information has been entrusted to the Centre for Pedagogical Information and Documentation, a section of the General Directorate for Professional Improvement in Teaching.

In Nicaragua there have been moves to transform the Ministry of Education's Pedagogical Library, which was founded in 1966, into a documentation centre.

Panama's Pedagogical Documentation and Information Section set up in 1960 under the Integrated Educational Planning Office became a unit of the Ministry of Education's Department for Textbooks and Teaching Materials in 1970.

In 1958, the Ministry of Education of Paraguay set up the Centre for Pedagogical Documentation and Materials' Production, which, from 1966, became a section of the Educational Psychology Research Department. In 1973, the Department for Libraries and Educational Information was established within the Higher Education Institute (ISE)

Significant work has been carried out in Peru by the Sub-Directorate for Educational Documentation set up in 1973 within the National Institute for Educational Research and Development (INIDE).

In Trinidad and Tobago the Ministry of Education and Culture has a Centre for Educational Documentation.

The Dominican Republic's National Centre for Educational Information and Documentation, set up in 1959 under the Ministry of Education and Arts, has had operating problems.

In Uruguay a National Centre for Educational Documentation and Popularization was set up in 1960 under the Ministry of Education's National Council for Primary and Teacher Education.

A Pedagogical Documentation and Information Centre was set up in Venezuela in 1959 as a unit of the Ministry of Education's Planning Directorate.

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A synthesis of perspectives for educational research in the countries of the region has been provided by Magendzo (1980), who argues that conditions for the countries of the region over the past decade have varied between the intermediate and minimal states

Nevertheless, this situation is improving. Governments have been giving a new impetus to informational activity and the dissemination of research findings. This concern was reflected in the recommendation of the Intergovernmental Committee for the Principal Education Project with regard to the 'project information system', a recommendation approved at the Committee's meeting held in Mexico in November 1984 (OREALC, 1985). This initiated the Regional Information System in accordance with a frame of reference provided by technical studies specified in the resolution.

Another factor lending impetus to the dissemination of information on educational research findings and innovations is REDUC which operates in seventeen countries of the region and has twenty-three associated centres. REDUC[1] produces and disseminates national and regional publications containing analytical abstracts of research reports and educational innovations. It has encouraged the production of information analysis, national bibliographies and specialized subject bibliographies, as well as circulating a news and liaison bulletin. Within their respective countries, centres associated with REDUC promote the dissemination and utilization of information. Another recent initiative of REDUC has been the establishment of 'Project Impact' in which parallel training and user activities are carried out by Colombia, Chile, Panama, Costa Rica, Paraguay and the Dominican Republic.

Holding seminars and meetings for researchers, mostly sponsored by REDUC, has had considerable importance since they provided a favourable opportunity for the dissemination of research findings. Efforts in this field go back to the early 1980s.

Links between educational research findings and educational policies

The first observation made by those researching the subject is that information, by its very nature, is a 'difficult link to establish in practice' (Toro, 1981). By educational information is meant 'the set of elements which allows satisfactory decisions to be made with regard to specific problems in education'. Decision-making requires the user to establish a link between a collection of data and a problem. From this, it follows that the various users (researchers, administrators and educators) may interpret such information in different ways and so diverge in the identification and analysis of problems. A further difficulty in this area is the degree to which each group is accustomed to dealing with written matter as a vehicle for information. Within the single category of educators, Toro identified a variety of ways in which information was perceived while preferences, means of acquisition and possible uses also varies. In a study covering evidence from 4,166 educators at all levels in Colombia, Toro came to the following conclusions:

College directors with little experience of education find it difficult to see the importance or possible use of scientific information. On the whole, they cannot see how research findings might apply in their own establishments.

College directors and professors with more experience of education find it easier to perceive the importance and possible use of information.

Deans of faculties of education and directors of post-secondary programmes do not usually find it easy to perceive the importance of information or see how it might be applied in their work.

Students in such faculties, on the other hand, show considerable awareness of the advantages of scientific information in education. However, they indicate that access to information is not easy since it is disregarded by their teachers.

Rectors of private colleges say that research information is not used by their teachers even when it is available. The teachers, for their part, do not see how the information can be used in their work.

Newly graduated educators appeared to be the most resistant in this respect, apparently confusing content with research itself.

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[1] For Further background see Appendix.

There is a prejudice against information from foreign countries and a feeling that it will not be applicable locally.

There is also a preconception that statistical techniques in handling data make educational information incomprehensible.

This practical difficulty with regard to information seems to stem from four sources (Gutiérrez, 1986).

Difficulties arising from the difference in nature between the activities of research and decision-making. An educational researcher does not address himself primarily or principally to decision-making. He is concerned to analyse a specific problem, consider its causes and ramifications, formulate new questions and open the way for possible interpretations. In general, his attention is not directed towards recommendations for action. Decision-making lies in the field of the policy-maker whose principal concern is what should or should not be done with regard to some specific project, electoral platform or social concept. The researcher looks at a problem for its own sake. The policy-maker, however, has to look at the way the problem is perceived by society or, more often, by the social group from which his power derives.

Difficulties arising from an oral culture. It has rightly been suggested that our Latin American culture is not a written one, the inclination being to speak rather than write, to listen rather than read (Toro, 1981)

Difficulties arising from the nature of educational problems. The factors that determine educational problems are of the most extreme diversity and can be studied only by broad theories and widely varying methods.

Difficulties arising from the nature of the information. A collection of data, be it a library, a documentation centre, a computer file, a statistical framework, an experimental report or a research report, does not in itself constitute information. Data becomes information only when acted upon, when selected in accordance with a need, a problem or a question in order to obtain a response, Information, therefore, is not something given but the product of intention. All the work of documentation centres will be in vain unless accompanied by action to produce information, that is, to establish a purposeful relationship between the user of the centre and the data available.

Corvalan (1986) on the basis of an examination of opinions on the subject advances a number of propositions:

1. First, the impact may be considered as the consequence of the application by different users or interlocutors of the information produced by or resulting from the research process. The impact will depend on the adequacy of communication and on the information content, the nature of the research worker and user, and the circumstances surrounding the communication.
2. The impact is related to the time-scale for the production of findings and the needs of users. Findings that are delivered at the right moment may have greater effect than those that are delayed out of a desire for perfection.
3. The impact may, at times, depend on the possibility of involving users in the research process and/or some phases of implementation.
4. It is important to ascertain the areas in which educational research can make an impact, The contradictions in a system will be exploitable to the extent that the functioning of the system is understood.
5. It is very important for researchers to bring their results to the attention of public opinion through the mass media.
6. It must not be forgotten that the research process can have an impact on researchers themselves in their commitment to the improvement of education.
7. It is essential to find ways to enable research to be carried out by teachers at grass-root level and by the masses with whom they work.
8. It is important for researchers to act in advance of government and to prepare a climate favourable to acceptance of changes in policy. Research centres must anticipate current and future trends and problems.

9. To achieve the greatest effect, research findings must be presented selectively; a mass of findings may be difficult to comprehend.
10. It would appear that objective research using quantifiable data will have the most direct and immediate effect. However, such data must be clearly presented if they are to be converted into usable information.
11. The countries of Latin America have been accumulating a significant archive of material on educational problems. Data are being organized within valid analytical frames of reference and research findings are being systematically related to the educational problems confronting governments. This accumulation of readily accessible information is a resource that the governments of the region will be able to draw on more and more in the future.

Educational Research Policies and Decision-making Procedures in the Arab States

Salman Abu-Ali

The present study is based on the eleven replies received from the Arab States to the Unesco questionnaire (twenty-two questionnaires were sent out), official documents and reports, the proceedings and recommendations of conferences and colloquia on educational research and, finally, on personal observation and experience in the field.

Review of the reports of the Arab states

General

Unity characterizes the Arab world. The deep-rooted sense of Arab cultural identity is a potent factor for unity and, at the same time, a fundamental condition for all educational, economic and social development. This feeling, moreover, has been strengthened through the Arab League and through the Arab Cultural Unity Agreement.

The third Conference of Ministers of Education and Ministers of Economic Planning of the Arab States (Marrakesh, 1970) stressed the importance of educational research and recommended that the Arab States ensure scientific bases for development in education. since then, there has been clear concern for educational research which has manifested itself in the establishment of research centres in all the Arab States and in attention to higher studies and research in faculties of education. Other institutions set up include the Educational Research Department (Tunis) and the Arab Centre for Research in Higher Education (Damascus), both belonging to the Arab League Educational, Cultural and Scientific Organization (ALECSO) and the Arab Centre for Educational Research of the Gulf States (Kuwait).

Colloquia, seminars and training courses in educational research have multiplied since MINEDARAB IV (Abu Dhabi, 1977). Recommendation 21 called on Arab States to support national centres for educational research, information and documentation, as well as ALECSO's Educational Research Department. Recommendation 22 further called on Arab and international organizations to provide technical and financial assistance to member states to support national educational research centres in order to enable them to discharge their functions effectively.

Arab Ministers of Education meeting in Khartoum (1979) adopted a report on a Strategy for Arab Educational Development which called for the growth of educational research in order to achieve efficiency, authenticity and renewal, and for attention to the development of the educational research structures in the Arab world.

The promotion of educational research in the Arab States was also emphasized in three ALECSO conferences for Ministers of Higher Education and Scientific Research (Algiers, 1982, Tunis, 1983, and Baghdad, 1985).

Saudi Arabia

The most important Institutions of educational research are the eight university faculties of education[1] followed by the departments of the Ministry of Education and the State Directorate for Girls' Education. Order 81022/47 (1977) of the University Academic council, led to the establishment of educational research centres at Riyadh and Abha in order to: (a) lay down educational research priorities; (b) co-operate with the Ministry of Education and Educational institutions in carrying out research; (c) approve research proposal and allocate the necessary funds; co-ordinate research with the various bodies concerned; (e) disseminate research findings and propose practical measures to ensure their application; (f) and exchange experiences with similar bodies at home and abroad.

Scientific research in the girls' colleges is carried out by female post-graduates working mostly for a Masters' degree or doctorate in the departments of education and psychology.

Educational research in the Ministry of Education is handled principally by the Educational Development Division. The ministry's operational plan stipulates that its programmes be designed for evaluation and qualitative development of the activities of the ministry with the aim of raising administrative standards, enhancing activities, reducing costs and carrying out research in co-operation with all parties to the educational process, both within and outside the ministry. Wherever possible, research findings are to be put into practice to serve the interests of students. The Educational Development Division includes departments for curricula, research and evaluation, and educational technology as well as an information centre.

The research and development department of the Educational Development Division develops the various levels of general education, carries out the necessary research in the various disciplines of educational science and designs experiments, and determines appropriate techniques of measurement and evaluation.

Within the State Directorate for Girls' Education, a General Department for Educational Research has recently been established to increase the efficiency and effectiveness of the education system by carrying out research and setting up a comprehensive information system in support of the educational process.

Funding for educational research comes from the general budget of the body concerned. The educational research budget of the Ministry of Education falls within appropriations for the Educational Development Programme. For 1985 to 1990, appropriations amount to 43 per cent of the sum allocated to programmes laid down in the Ministry's development plan.

Although centres outside the field of education make only a limited contribution to educational research, certain bodies, such as the Ministry of Planning and the Institute of Administration, hold educational colloquia. Scientific bodies, such as King Abdulaziz Industrial City, direct research projects with educational implications.

The fourth Development Plan addresses itself to training research manpower and stresses the importance of raising the efficiency of personnel and technical and administrative cadres through continuously assessed training programmes and curricula.

With regard to determining research priorities and establishing research policies in education, the Ministry of Education provides general guidance and supervision, but each body sets its own priorities and requirements within the framework of the National Development Plan.

Within the Ministry of Education, the Research and Evaluation Department of the Deputy Ministry for Educational Development co-ordinates the various research bodies through its Research Bodies Co-ordinating Committee which meets regularly. The Department participates in meetings of officials of educational research bodies in the Arab Gulf countries organized by the Educational Research bureau of the Arab Bureau for Education of the Gulf States.

Research is reviewed by referees in the universities concerned. There is no central body to measure or evaluate the impact of research apart from the various specialized departments of the Ministry of Education, such as the General Curricula Department and the General Research and Evaluation Department within the Educational Development Department. Steps are being taken to promote a national research policy including the formation of an Educational Research Committee under the Deputy Ministry for Educational Development, and the laying down and financing of a programme for educational research.

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[1] Faculty of Education, King Saud University; Faculty of Education, Abha; Faculty of Education, Umm Al-Qura University, Mecca; Faculty of Education for Girls, Riyadh; Faculty of Education for Girls, Jeddah; Faculty of Education for Girls, Mecca; Faculty of Education, Medina; Faculty of Education, King Faisal University.

The General Department for Research and Evaluation of the Ministry of Education Development Department has carried out an exhaustive study to define and classify priorities in educational research[1].

Liaison between research centres takes place through colloquia and meetings held to discuss educational issues, as well as through field work.

No systems, such as networks, exist to disseminate research findings at the national/local level. The Office for Statistical Information and Educational Documentation of the Educational Development Department monitors educational research, issuing related announcements in its documentation journals and abstracts in a biannual Educational Research bulletin. Research centres in the faculties of education issue bulletins, such as the *Bulletin of the Research Centre of the Faculty of Education* (Abha), and the *Bulletin of the Faculty of Social Sciences* (Riyadh), to disseminate their findings.

The Centre for Statistical Information and Educational Documentation announces colloquia and distributes reports on them to researchers and others who may be concerned. Central libraries are to be found in the universities, with branch libraries in the faculties of education and research centres. The Faculty of Education of King Saud University has a resource centre for educational information with 20,000 microfiches and equipment for reading and copying. The information centre also a maintains a set of ADIC cards on microfiche.

Because of their importance for planning, the Ministry of Education makes every effort to utilize research findings and to circulate them to regional directors of education and teachers. For example, the Bureau for Research and Evaluation in Education sent the recommendations and research findings of the Colloquium on Primary and Intermediate Education to the various divisions of the Ministry, to education departments, and to the other bodies and individuals concerned. Steps are being taken to boost the effect of educational research data and findings on planning and development in education through studies of difficulties and problems undertaken by the Bureau. The development plan, moreover, indicates the importance of a programme of educational research on the Ministry's priority areas such as the efficiency of educational systems, failure, dropping out, etc.

Iraq

The two main centres for educational research in Iraq are the Ministry of Education's Centre for Educational Research, established at the end of 1985 as a result of the development of studies in the field of education and an extension of the Research and Documentation Office of the General Educational Planning Department, and the Educational and Psychological Research Centre of Baghdad University within the Ministry of Higher Education and Scientific Research, founded in 1967 to carry out educational and psychological research relating to questions of education in Iraq in order to raise standards and to act as a force for economic and social development. The former works within the central state plan to monitor the state of the educational process and has three technical sections: a research section, a studies section and a documentation section, which has in turn three sub-sections documentation, information and documentation library. Finance derives from the budget and investment projects of the Ministry of Education. Funds made available are intended to cover research costs and related expenditure for printing studies and purchasing books and reference materials, as well as for developing information systems for educational research.

Centres that help to carry out educational research are to be found in certain ministries, universities and institutes. They include: (a) the Educational Planning Department of the Ministry of Planning; (b) studies in the departments of Education and Psychology of the faculties of Education of five universities (Baghdad, Mustansiriyah, Mosul, Basra and Salah Al-Din); and (c) research centres attached to the above faculties.

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[1] Available in Arabic from Unesco's Regional Office for Education in the Arab States (Unedbas, Amman).

Research personnel, recruited by the Ministry of Education, receive instruction at the Ministry's Educational Training and Development Institute. Training courses lasting from two weeks to a month are also organized from time to time for researchers in the field. Longer courses of six months to a year are provided by the National Planning Institute.

The Educational Research Centre determines research requirements and priorities on a scientific basis, taking into account the needs of the education system and the means to improve it. Problems are observed and solutions or appropriate alternatives are proposed. To this end, the general departments of the ministry and the general education departments of regional governments are surveyed to establish their educational research needs. A central plan is drawn up in the light of the findings.

The Educational Research Centre also co-ordinates with educational bodies concerned in the preparation of research and studies. In particular, it works with the Ministry of Higher Education and Scientific Research through the Centre for Educational and Psychological Research of Baghdad University. In its co-ordinating role, the centre also carries out programmes and research for other organizations such as the Teachers' Union, the Federation of Iraqi Women and the National Federation of Iraqi Students and Young People.

Research projects carried out by the Educational Research Centre are financed from the budget of its parent ministry; results are submitted for evaluation to experts within the Ministry of Education and outside. The findings and recommendations of such studies are important as they are relied on in the development of educational and administrative methods and in the appraisal of the education process.

One of the most significant steps taken to promote national educational research policies is the five-year research plan which forms the basis for annual research plans in the education sector, determining planning goals, methods of implementation and monitoring, and the participating bodies from the Ministry and from outside.

The Educational Research Centre attempts to stimulate interaction between research and all parties concerned with the educational process, including administrators, teachers and parents. Opinions are sought from educational researchers, practitioners and decision-makers, while procedures are developed to encourage the use of educational research and its findings. Decisions are thus based on field work over a long period, culminating in recommendations and proposals for action. The Educational Research Centre disseminates research findings and provides resources, documents, statistics and publications concerning the condition, problems and development of education systems in Iraq, the Arab countries and the rest of the world.

The Ministry of Education has embarked on a national strategy for education. This has involved drawing up an overall educational research policy which sets out priorities for theoretical and applied research in 1986 according to perceived needs.

Studies published recently by the Educational Research Centre include: *The Condition, Problems and Means of Development of Secondary Schools in Iraq* (1980); *Reasons for Differences of Level in Public Examination Results in Preparatory Schools*; *Evaluation of the Experiment to Increase Female Teaching Staff in Primary Schools* (1983); *Study on Homework in Primary Education* (1984); *Educational Research: Methods and Techniques Used to Meet Educational Problems* (1984); and *Comprehensive Education in Iraq and a Number of Arab States*. The Ministry of Education has carried out a number of surveys and analyses of urgent problems and issues in education and of research on them. For its part, the Educational Research Centre publishes educational abstracts as well as theses in Arabic and English at diploma, Master's degree and doctorate level. Bulletins and abstracts are also published on particular levels and sectors of education. Research findings and recommendations are sent for study and information to the bodies concerned.

Research findings are sent to the general departments of the ministry and to the general education departments of the regional governments. Implementation is monitored by the Educational Research Centre. The implementation of research findings is also studied and monitored by the Schools' Department and the Inspectorate, in view of their responsibility for developing education in line with contemporary thinking.

Kuwait

Three bodies specialize in educational research: the Curricula Research Department of the Ministry of Education, the Faculty of Education and the Education Development Centre of

Kuwait University. The first draws up a five-year plan with individual programmes for each year and in the second research is carried out by staff and students of the various departments. A number of other institutions including the Kuwait Institute for Scientific Research, the Research Advisory Office and the National Council for Culture, the Arts and Literature encourage educational research by providing resources and expertise as do the Educational Research Centre of the Gulf States (the Arab Bureau for Education of the Gulf States), the Centre for Educational Technology (ALECSO) and the Educational Innovation Programme for Development in the Arab States (EIPDAS).

Teachers assist with research activities in the field by answering questionnaires, submitting data, carrying out experiments with pupils, etc.

Measures taken by the Curricula Research Centre to inform workers in the field of research findings include distributing research studies to school libraries, printing abstracts for distribution to schools, and printing and distributing the Centre's research reports to schools. Principals and directors play an important role in making school staff aware of such findings to enable them to benefit thereby. Research carried out by the centre is of assistance to the various development committees. The centre, moreover, supervises all kinds of educational experiment and innovation.

There are a number of other institutes and training centres, in particular, the National Institute for Applied Education and Training (NIAET) which carries on research activities to increase the efficiency of education and training.

Research findings are distributed internally to the departments, institutes and centres of the NIAET and, externally, to researchers, planners, policy-makers and the like. Abstracts are also published in *akhbar al-hay'a* (*NIAET News*).

Bahrain

Departments of the Ministry of Education currently engaged in educational research include the Research unit of the Educational Documentation Department, the Statistical Research Unit of the Educational Statistics Department and the Curriculum Research Unit of the Curriculum Department. The Curriculum Unit of the same department also helps to conduct educational studies and research into subject matter. Apart from sections engaged in educational research, other departments may engage in research as the occasion or the nature of their work requires: For example, the Planning and Programming Department and the Adult Education Department. All departments of the Ministry concerned with educational research propose and draw up annual plans and programmes which are referred up to the director of the department and the deputy minister. These are then discussed and amended until ready for implementation. Once the research has been carried out, it is reviewed by ministry officials to determine the extent to which the findings can be employed.

Priority areas in educational research are the development of primary and secondary education. Necessary studies are carried out by the Committee for the Development of Secondary Education. A Subcommittee for the Development of Commercial Education was set up in 1981 to investigate the state and potential of secondary commercial education in Bahrain and the country's future requirements for school-leavers qualified in commercial subjects. Recognizing the need for a complete and radical overhaul of curricula and organization in the field of technical education, the ministry is currently engaged in development work with the assistance of United Nations experts.

Every effort is made by the Ministry to bring research findings to the attention of the various educational sectors in Bahrain, the Arab world and elsewhere.

There is no inventory of priority research projects in education. Priorities are determined in accordance with the educational development requirements of the ministry in the various fields of education.

Qatar

Two organizations in Qatar are concerned with educational research: (a) the Technical Research Department of the Ministry of Education which carries out educational and procedural research required by the Ministry, evaluates the work of the Ministry and its schools, and assists in the development of education, and (b) the Educational Research Centre of Qatar University which carries out research into the administration and organization of education, the evaluation of the educational process, educational planning and economics, curriculum development, etc. The research priorities of these two bodies are determined as follows.

First, the Ministry has established a Research Committee which, every year, sets out the priorities for research to be carried out for the Ministry. priorities are discussed and approved at a general meeting. The necessary studies are then carried out by members of the committee. Once research is completed, the findings are discussed by the committee and general recommendations are issue.

In the case of the Educational Research Centre of Qatar University, a joint committee has been set up by the Ministry of Education and Qatar University. Every year, the committee considers the priorities for research to be carried out by the centre. Specialists from the Ministry and the Faculty of Education are then commissioned by the centre to carry out the research. The principal areas of interest are: (a) the organization and management of education; (b) educational planning and economics; (c) methodology; (d) curriculum development; and (e) practical problems encountered in the educational process.

Educational research for the Ministry of Education is submitted to the Educational Evaluation Committee which is formed from senior officials of the ministry and the university. The work is discussed, reviewed and assessed, with amendments being called for where necessary. Completed research for the Educational Research Centre of Qatar University is sent to an academic specialist for evaluation and a written report giving reasons for or against publication.

The management committee responsible for supervising educational research recently decided to draw up guidelines for a national educational research policy. Priority at present is given to the development of secondary education. One of the main projects, after long and careful study, is the introduction of a two-semester system at this level.

As Qatar is a small country with an advanced communications network, the ministry does not need to disseminate research findings through specialized agencies but sends them directly to those concerned. The ministry has drawn up an inventory of priority research projects to be carried out. Copies of research papers are distributed directly to the individuals or bodies concerned.

Information may be communicated through publications, including research journals and the results of ienquiries into educational problems (such as the reluctance of young people to take up education as a career or academic failure and drop-out), conferences and colloquia, the mass media, and libraries, where research work is kept by the Research Documentation Library of the Ministry of Education. Copies of all printed research are also available at the National Library.

Teachers participate in research by responding to research surveys and questionnaires and by expressing their opinions in meetings held to discuss research findings. Teachers outstanding in their field are chosen to assist with related research. Research also forms part of their higher studies in the Faculty of Education.

The impact of educational research has been greatest in curriculum development and subject textbooks, development of educational technology and subject teaching methods, and development and continuous upgrading of inputs to the educational process.

New ground is being broken with a number of current projects, such as the use of television in education, the introduction of computers in the educational process and practical studies on preparatory and secondary schools.

Oman

The main establishment for educational research in Oman is the Educational Research Office belonging to the General Department for Educational Development of the Ministry of Education and Youth Affairs. Through its experts and researchers, the office carries out descriptive field-work and conducts surveys. Allocations for the few projects carried out each year are made on a case-by-case basis by agreement between the director and the researchers.

There is close co-operation and co-ordination between the Educational Research Office and the Arab Bureau for Education of the Gulf States (Riyadh) as well as with ALECSO. As yet, there is no central organization for educational research policy in Oman. The determination of research priorities and needs together with the co-ordination of research activities are left to the Educational Research Office which receives instructions from the Ministry through the General Department for Educational Development. The General Department, moreover, may receive specific requires for research from the Planning Committee or the Education Council and the tasks are delegated to the Educational Research office.

The Educational Planning Committee is officially responsible for considering the appropriateness of research and assessing results. Findings are discussed by members of the committee with the research staff of the Educational Research Office. Research may also be discussed by the Education Council, whose members include the directors of education of the various provinces. Researchers also maintain contacts with the staff of Sultan Qaboos University within the framework of meetings such as the monthly seminar organized by the Educational Research office.

Inventories have not yet been drawn up for priority research projects.

Research findings are mainly disseminated through the irregular *Risalat at-tarbiya* (Education letter) and the fortnightly *Nashrat at-tajdid at-tarbiya* (Journal of educational renewal) which are circulated to staff in the Ministry of Education and Youth Affairs and to the education departments in the various provinces for distribution to schools, and through a monthly seminar, held by the Educational Research Office, at which an invited distinguished educationist or expert gives a lecture on a research topic followed by a general duscussion and questions. Teachers and Ministry personnel in the provinces may be asked to conduct short studies the findings of which the Educational Research Office publishes in abridged form in *Risalat at-tarbiya.*

The Ministry of Edication and Youth Affairs pays close attention to the studies and findings submitted by the Educational Research Office. The experimental introduction of basic education in four primary and preparatory schools in the capital and the Al-Rustaq region as part of the third five-year plan (1986-1990) resulted from one such study. A positive final evaluation could lead to the generalization of basic education throughout the country.

United Arab Emirates

No national research institutes exist; rather, educational research establishments function within the Ministry of Education. The ministerial department concerned with research, documentation and planning draws up and distributes a list of priorities and needs for educational research.

Evaluation is *ad hoc*, without reference to predetermined, objective standards and generally intended to establish whether the work merits publication.

Informal contacts take place between researchers and planners while liaison with teachers results from official supervision via research units in the schools.

Research findings are diseminated through local publications, *Majallat at-tarbiya* (Education journal) and *Majallat al-jami'a* (University journal).

Staff of the Faculty of Education of the University of the United Arab Emirates have carried out research projects on such topics as the impact of research on educational policy-making and decision-making, the problems of adolescents, higher education and manpower, the use of television in education and the preparation of educational materials for adults.

Syrian Arab Republic

The Ministry of Education's research department, set up in 1959 and including a planning office and an educational aids office, was replaced in 1967 by three specialized departments, the Research Department, the Curriculum and Textbooks Department and the Planning Department. The Faculty of Education participates in educational research through students' theses topics, generally concerned with assessment, student problems, general education curricula, teacher-training curricula, and so on. The Ministry of Education is setting up a National Research Centre. The Research Department is the central mechanism for educational research, selecting research topics according to specific priorities and determining the research tools and procedures. It carries out many activities connected with training, curricula and the work of specialized committees.

Research carried out by the department is published and distributed to concerned bodies in the country, to ALECSO and to Unesco. There are two main journals, the Ministry of

Education's *Al-mu'allim al-'arabi* (The Arab teacher) and the Union of Teachers' *Sawt al-mu'allimin* (The teacher's voice).

The results of the conference on the development of pre-university education were published.

Teachers participate in research by supervising the distribution and completion of questionnaires.

Jordan

Educational research is carried out by the Centre for Educational Research of Yamouk University, and the Science Research Council and the Post-graduate Studies Council of the University of Jordan.

The first, established in 1981, carries out research into means of attaining educational objectives and into the development of the university's plans and programmes, and co-operates with the Ministry of Education in seeking solutions to Jordan's educational problems. It is also concerned with the effective use of educational technology to solve problems amd raise standards. In addition, the Centre supervises the collecting and editing of abstracts of Masters theses in education at the two universites.

Since its foundation in 1973, the Science Research Council has been responsible for the promotion and publication of scientific research in order to raise university academic standards and serve the societies of both Jordan and the whole Arab world.

The Science Research Committee, composed of six members chosen by the Board of Deans, supports and publishes research.

Educational research centres in the Arab world

Djibouti is the only Arab state without at least one educational research centre, be it a centre or an institute, a department or an office; some belonging to a faculty of education or the ministry of education or higher education (See Table 2).

The staff of educational research centres in faculties of education are for the most part, academics rather than full-time researchers. Some are invited to carry out research for the centre from time to time; others may work full-time at the centre for a specific period and then return to academic duties. Table 4 gives the numbers and qualifications of staff in centres for which information is available.

The ALECSO Educational Research Department has been carrying out a general survey of research undertaken by educational research centres in the Arab World. Studies are collected for analysis and abstracts to be made available to researchers as required. From the corpus of materials sent to the department, a random sample was taken from eighteen educational research centres to establish their general interests and concerns. The sample consisted of 527 items of research. From Table 5, which provides a breakdown by type, number and centre affiliation, it can be seen that the main interests of centres in faculties of education were educational evaluation, problems and inclinations of pupils and the economics of education. Centres belonging to ministries of education, focused on educational aims and policies, and on teaching aids and methods. Areas of common interest would appear to be content, teacher-training, and different types of survey. it is apparent that little research is being done by either side on the direction and management of education or on the education of women.

A reading of the research papers analysed shows that most studies carried out by faculty of education centres attempt to apply foreign ideas or experience to the local situation. Research undertaken by ministry of education centres deal with real local problems, but unfortunately lack scientific rigour.

Although the information received by the Educational Research Department is incomplete regarding publications, it can be seen from Table 6 that some centres publish their studies in printed or photocopied form, journals that appear at regular or irregular intervals, and information sheets. The picture is incomplete; the table does not indicate the content, circulation or readership of the publications.

Analysis and examination of the state and problems of education research in the Arab World

The term 'research' is used here attributively to cover a number of fields:

1. The work of committees organized by ministries or education and related bodies, involving the study and discussion of a topic with results being embodied in the form of a long or short report.
2. Papers submitted on a topic by experts after library study, field visits and the formulation of proposals.
3. New thoughts, ideas, information or trends which have been put to paper in the form of a study.
4. A review of the literature on an educational topic in one or more of the Arab States.
5. The formulation of experiments on abilities and tendencies and/or their applications; results of surveys and questionnaires.
6. The collection, organization and processing of statistical data to shed light on some situation, phenomenon or tendency, or to prove or disprove some point.

There is, however, a further form; what supervisors and students term 'research' is the logical, systematic and 'scientific' treatment of a subject: the problem is defined; hypotheses are postulated to solve it, then tested; restyles are obtained; the whole procedure is set out in a thesis which is checked, discussed and revised; finally, the individual concerned receives his/her degree, promotion or financial reward.

This latter type belongs to a new generation of research, associated in large measure with the development of faculties of education and educational research centres. Its advocates have sought to distinguish themselves from others and have styled their work as 'professional' or 'specialist'. The principal criterion determining what may or may not be called educational research would seem to be one of system or technique more than anything else. This is a criterion, moreover, which has been borrowed, literally in most cases, from abroad, with the result that research is classified according to categories already determined by the West: historical, descriptive, experimental, etc.

In the Arab States, as with the other developing countries, the new generation of research has grown in scale or begun to take over in the last two decades. The bulk of such work has been historical or descriptive, with experimental and future-oriented research coming a poor second. Furthermore, interdisciplinary field work tends to be neglected in favour of specialized research in educational psychology and philosophy, comparative education and the like, undertaken largely by individual academics, postgraduate students and research centre specialists. It is rare to find active research carried out by educational practitioners to improve teaching methods. Studies are concerned with 'technique' and with micro-aspects of education while research on policy and strategy is virtually non-existent.

Taken as a whole, the different types of research have confined themselves, more or less, to the traditional framework of educational practice, values, programmes and standards inside and outside the school. There has been no attempt to rebel against the past, to seek breakthroughs or to divert education into new paths.

Nevertheless, it is fair to say that during recent years, especially the 1970s, new trends have appeared in educational research, the horizons of research have been broadened to include planning, educational economics, educational renewal, non-school education, formative training and so on. This development also includes the use of systems analysis, cost-benefit analysis and other complex and advanced statistical techniques, sometimes employing computers. Inevitably, educational research was opened up to outside specialists and institutions such as faculties of economics and planning ministries and boards.

Educational research in the Arab States suffers from problems and deficiencies which must be taken into account when drawing up related policies and plans. Perhaps the most significant is the low level of interaction between research and the education system itself, despite the establishment of research bodies within, or in liaison, with ministries of education, and despite the many efforts exerted to build bridges between faculties of education and the ministries responsible for the educational process. Educational research action directed towards developing the education system is still extremely limited.

One reason for this may be the nature of the education system (with its inheritance from the past) and that of the new generation of educational research. For all its quantitative, and to some extent qualitative, growth, the education system clings to its traditions and feels able to meet every problem with its old rules of thumb. Educational research, modern, technical and scientific, seems superior and remote rather than an urgently needed ally to assist with growth and development. Furthermore, the education system has to make rapid decisions even on vital issues whereas educational research requires time and painstaking effort to yield precise and reliable results. Another problem derives from decision-makers not taking research seriously because of its preoccupation with micro-studies that may appear marginal or because of inflated claims made on the basis of superficial and insubstantial results. The functionality and relevance of educational research is, therefore, the key to the whole problem.

Educational research is a new product in a market that is resistant to change. It cannot be expected that the educational establishment will take the initiative to strengthen ties and move towards integration unless it is provided with a leadership and officials who believe in the value of information and scientific procedures as the basis for decision making and who insist on a new outlook and a sense of urgency to direct education to new horizons.

Legal provisions, regulations, procedures and agreements, whether written or verbal, cannot by themselves generate this interaction. hence derives the importance of an on-going system of training to bring new and effective methods to those involved in education and research. At the same time, a new framework is needed to promote harmony and solidarity between the two.

On the human side, however, the deficiencies are many: lack of technical competence, of potential or capacity for research, of the ability to perceive problems for treatment by research or to look at them in a new light and of the skills in experimentation and planning needed to apply, disseminate and popularize information.

Infrastructure is important. There must be institutions to train researchers and modern information systems to facilitate the generation of useful data which will, at the right time and place, serve as inputs and outputs for both education and research. It is perhaps this latter point which is the weakest link in the chain of educational research, and of research in general, at every level in the Arab States.

Education and educational research must be seen in its cultural, political and administrative context. The culture with which the Arab States entered the modern age was almost wholly lacking in a spirit of freedom, critical thought and scientific inquiry. Rather than restoring the tradition of critical interpretation, they resorted instead to importing ideas from abroad.

The general administration, of which education is a part, is the product of a political system in which power descends from above through statute and regulation rather than springing from bases of experience, sound information and a true perception of the common good.

Educational research policies

Declared policy is to be found in the preambles of statues for new research institutions and in the functions and tasks of faculties of education. Overall, they confirm the attention paid to educational research and to the ways in which it can be employed for educational, social and economic development. Policy is also seen to be concerned with the training of researchers. Similarly, there is concern to follow up new educational trends and to liaise with other research centres and networks, both in the Arab States and outside.

At present, every Arab state is in urgent need of a single, detailed, overall policy for educational research that faithfully and manifestly corresponds to the reality of that country's education, traditions and social system.

Research policy must provide for the many different requirements needed for progress. Priority must be given to descriptive and evaluative research not only because the data are crucial input to research but also because such information, as in all developing countries, is scarce and widely dispersed throughout the Arab world. As well as providing national level data such studies are of benefit at this stage because, by establishing the state of education on a scientific basis, they prepare the way for development along sound lines. It is equally important at this time to give priority to statistical research and tools which must be developed, refined and adapted to the Arab context.

Since the 1970s, ALECSO has been seeking, through one of its technical committees, to formulate a strategy for the development of Arab education. In 1977, this strategy was published in the form of a document[1] affirming, among other things, the importance of establishing and developing education systems on a scientific basis. One chapter 'Towards the Development of Educational Research to Achieve Efficiency, Authenticity and Renewal', laid down guidelines for a policy to accompany research. ALECSO also founded its own department, the Arab Centre for Research in Higher Education.

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[1] *A Strategy for the Development of Arab Education*, ALECSO, 1979, pp. 288-90.

The Arab Bureau for Education of the Gulf States is putting emphasis on educational research and Arab values, future-oriented studies, educational renewal for development and a number of questions of particular concern to the Gulf states. The most important of the latter are research into the education and training of immigrant labour and the effect of the flow of foreign labour from the east on the different levels and sectors of the education of the young and the culture of adults. Attention must be drawn to the recently created Islamic Organization for Education, Culture and Science.

In the Arab world as a whole, efforts are being exerted to design educational research plans. However, there is, in general, no single overall plan at the national level but rather a variety of them drawn up in one way or another by the centres and units of ministries of education and other bodies such as social research centres. Where plans have, in fact, been established at the national level, they are usually short term and often amount to no more than a list of research topics and related activities such as seminars and training courses. Plans fail to balance activities against the vital human inputs, both qualitatively and quantitatively in most cases. They are often dropped, interrupted or truncated because of shortage of resources, omission or neglect of important considerations or the arrival of urgent demands from the Ministry and other bodies.

Perhaps the reason for all these deficiencies is the lack of awareness or belief in the importance of research for progress and effective developmental activity. On the regional and sub-regional levels, efforts are being made to lay down educational research plans on a systematic basis by institutions such as the Arab Centre for Educational Research of the Gulf States in Kuwait, the Research Unit of ALECSO in Tunis and the Arab Bureau for Research in Higher Education in Damascus. They are attempting to investigate common needs and problems and to advise Arab governments and experts. However, the procedure followed is no more than drawing up a list of activities that is later translated into implementation plans by conventional methods.

The relation between research findings and educational decision-making

One reason for the failure of findings to attract the attention of decision makers is the neglect by educational research in the Arab States of an important field, the dynamics of educational decision-making. The simple fact of informing decision makers of educational research findings will not be sufficient to make them act in the light of the data from which the findings derive. In the best of situations, knowledge is but one factor influencing people. At every level, educational policy-makers and decision-makers find themselves faced with a large number of factors, political, economic, social, psychological and administrative, which they have to take into account.

Conclusion

Like research in other fields, educational research in its concepts, goals, systems, techniques, focus of interest, regulations, practices, investments, production, infrastructure and status, is an indicator of a specific social, economic, educational and technological level. It would be a mistake to judge the research activity of a given society by the standards and achievements of a more developed one. It would be equally mistaken for the former to copy slavishly the policies, strategies and plans of the latter in the hope of achieving parity.

In the Arab World today, educational research suffers from a paucity and dispersion of data and information owing to the absence of comprehensive surveys of the field.

Two questions are crucial for the guidance of educational research and planning policies. How can educational research be aligned so that it is able to develop, enrich and renew the education system? How can the education system be oriented towards educational research for advice and help in problems of growth and development to determine a sound way forward into the future?

Apart from the communication difficulties, educational research in Arab States suffers from problems affecting content, direction and institutions, including: (a) inadequate infrastructure, especially information systems; (b) the low level of interaction between research and decision-making; (c) the gap between problems dealt with by researchers and (d) the interests of educational decision-makers and executives; and the presentation of educational research findings in forms unsuitable for translation into programmes capable of implementation.

In the end, however, the malady of research in the Arab World and its cure reside in the nature of the education system. So long as education continues to teach inert facts, to be learned by heart and repeated uncritically, and to teach for the old traditional examinations rather than science, technology and the needs of modern life, educational research will remain no more than a veneer.

At the national level, educational research policies, where they exist, are for the most part those of institutions rather than those of the state. Thus, in every country, there is the need for a unified, overall policy of educational research, formulated by university academics, research centre specialists and educational executives.

The formulation of educational research policies must be clear, detailed and specific so that they can constitute a frame of reference for all plans, research work and evaluation. They should stipulate a methodology for 'social' work in carrying out studies, as well as the ways and means for developing research work and related infrastructure.

The questions of co-operation, co-ordination and integration to promote educational research remains a problem in the Arab World. Without a dedicated and committed scientific management, plans and policies will continue to be inadequate, Educational research and development, moreover, particularly with regard to invention and innovation, will remain marginal.

Educational research cannot provide the whole answer to every question faced by education in the Arab World. It is, however, the first scientific step on the road to educational development. Meticulous educational research can lead to important changes in the educational process that are of direct benefit to students through the application of findings and the correct use of modern educational aids. It is the instrument which can yield practical solutions to the acute problems suffered by education in the Arab States.

Table 1. Faculties of education in the Arab States

Country	Faculty of education	Higher teacher-training college	Total
Jordan	2		2
United Arab Emirates	1		1
Bahrain	1		1
Tunisia		2	2
Algeria		1	1
Lebanon	2		2
Saudi Arabia	5		5
Sudan	2		2
Syrian Arab Republic	1		1
Somalia	1		1
Iraq	[illegible]	1	5
Qatar	1		1
Kuwait	1		1
Libyan Arab Jamahiriyah		3	3
Egypt	9		9
Morocco	1	1	2
Mauritania	1		1
Yemen	1		1
Democratic Yemen	1		1
Total	39	3	42

Source: Educational Research Department, ALECSO 1983 (Tables 1-6).

Table 2. Names and affiliation of educational research centres in the Arab States

Name	Affiliation			
	Ministry of Education	Ministry of Higher Education	Faculty of Education	University
Department of Educational Research, Jordan	*			
Faculty of Education Centre, Emirates University			*	
Educational Research Department, Bahrain	*			
National Institute of Educational Sciences, Tunis	*			
National Education Institute, Algiers	*			
Educational Research Centre, King Saud University			*	
Educational Research Centre, Umm Al-Qura University			*	
Research Centre of the Faculty of Education, Medina			*	
Research Centre of the Faculty of Education Abha			*	
Research Department of the Saudi Ministry of Education	*			
National Centre for Education Research, Sudan	*			
Research Department, Syria	*			
Research Centre, Baghdad				*
Research Committee, Arbil			*	
Research Centre, Faculty of Education, Qatar			*	
Centre for Curriculum Research, Kuwait	*			
Educational Development Centre, Kuwait University			*	
Educational Research Department, Libyan Arab Jamahiriya	*			
National Educational Institute, Morocco		*		
National Educational Institute, Mauritania	*			
Educational Research Centre Democratic, Yemen	*			
Total	11	1	8	1

Table 3. Aims and tasks of educational research centres in the Arab States

Centre	Aims and tasks									
	1	2	3	4	5	6	7	8	9	10
Educational Research Centre (ALECSO)	*	*	*	*	*				*	*
Educational Research Centre of the Arab Gulf States	*	*	*	*	*	*	*		*	*
Educational Research Department Jordan	*	*	*	*	*		*		*	*
Educational Research Department, Bahrain	*	*	*							*
National Institute of Educational Sciences, Tunis	*		*	*			*			*
National Education Institute, Algiers	*		*			*	*			
Educational Research Centre, King Saud University	*	*	*						*	
Educational Research Centre, Umm Al-Qura University	*	*	*			*				*
Research Centre of the Faculty of Education, Medina	*					*	*			
Research Centre of the Faculty of Education in Abha	*	*	*		*				*	*
Research Department of the Saudi Ministry of Education	*			*		*	*			*
National Centre for Educational Research, Sudan	*	*	*	*						
Research Department, Syrian Ministry of Education	*	*	*			*	*			
Educational and Psychological Research Centre, Baghdad University	*	*	*	*	*				*	*
Educational and Psychological Research Committee, Arbil, Iraq										
Educational Research Centre, Qatar University	*	*	*	*						
Centre for Curriculum Research, Kuwait	*	*	*	*		*	*	*	*	*
Educational Development Centre, Kuwait University	*	*								*
Educational Research Department, University of Libya	*						*		*	*
National Educational Institute, Morocco	*					*		*		
National Educational Institute, Mauritania	*				*		*			
Educational Research Centre Democratic Yemen	*				*		*			

Key to Table 3

1. Carrying out educational research, studies and surveys.
2. Exchanging information and experiences with other educational research institutions at home, in the Arab World and abroad.
3. Providing consultancy services for institutions and individuals concerned with educational research.
4. Organizing confernces and colloquia on educational research.
5. Training educational researchers.
6. Co-operating with other bodies to form and train teachers.
7. Co-operating with curriculum designers, textbook writers and educational aids specialists.
8. Providing curricula, programmes and textbooks for the various stages of education; testing and evaluating them.
9. Working for co-ordination and integration between educational research bodies.
10. Dissemination of educational research by all means.

Table 4. Qualifications of educational research centre staff

Centre	B.A./B.Sc. only	B.A./B.Sc. + courses in Educational Research	M.A./M.Sc.	Ph.D.	Total number of staff
Educational Research Department, Jordan		2	2		4
Educational Research Department, (Bahrain)		3	-	-	3
Educational Research Centre, King Saud University		4	4	1	9
Research Department, Syrian Arab Republic		8	1	2	11
Research Centre, Baghdad		11	12	8	31
Educational Research Centre, University of Qatar		-	2	1	3
Curriculum Research Department, Kuwait		14	13	14	41
Research Department, Libyan Arab Jamahiriya		3	1	1	5
National Educational Institute, Algiers		20	-	3	23

Table 5. Research fields investigated by eighteen educational research centres

Type of research	Number	Centres in Faculties of Education	Centres in Ministries of Education
Philosophy of education and educational policy	19	2	17
Educational objectives	24	4	20
Content of education	81	32	49
Educational aids and methods	79	17	62
Evaluation	122	87	35
Formation and training of teachers	29	19	10
Problems and inclinations of pupils	70	50	20
Educational guidance	12	9	3
Educational economics	25	22	3
Educational administration	2	-	2
Female education	8	5	3
Miscellaneous	56	20	36
Total	527	267	260

Table 6. Publications of education research centres in the Arab States

Centre	Type of publication								
	1	2	3	4	5	6	7	8	Total
Educational Research Centre, ALECSO				*			*	*	3
Educational Research Centre of the Arab Gulf States						*		*	2
Educational Research Department, Jordan						*			1
Educational Research Department, Bahrain								*	1
National Institute of Educational Sciences, Tunis	*						*	*	3
National Education Institute, Algiers	No information available								-
Educational Research Centre, King Saud University						*			1
Educational Research Centre, Umm Al-Qura University	*					*			2
Research Centre of the Faculty of Education, Medina	*					*			2
Research Centre of the Faculty of Education in Abha	No information available								-
Research Department of the Saudi Ministry of Education	No information available								-
National Centre for Educational Research, Sudan								*	1
Research Department, Syrian Ministry of Education		*							1
Educational and Psychological Research Centre, Baghdad University				*		*	*		3
Educational and Psychological Research Committee, Salah Al-Din University	No information available								
Educational Research Centre, Qatar University					*	*			2
Centre for Curriculum Research, Kuwait					*	*	*	*	4
Educational Development Centre, Kuwait University	No information available								-
Educational Research Department, University of Libya	No information available								-
National Educational Institute, Morocco	*							*	2
National Educational Institute, Mauritania			*						1
Educational Research Centre Democratic Yemen	No information available								-
Total	4	1	1	2	2	8	4	7	29

Key to Table 6

1. Journal: appears irregularly
2. Journal: monthly
3. Journal: quarterly
4. Journal: biannual
5. Journal: annual
6. Research papers: photocopied
7. Research papers: printed
8. Miscellaneous publications for information.

PART III

THE MAIN RECOMMENDATIONS OF THE REGIONAL AND INTERNATIONAL MEETINGS

International Colloquium

Research and Practice in Education: How to strengthen links between research and practice in order to improve general education

European Centre for Higher Education
Bucharest, Romania
10-15 November 1980

Suggestions for action

I. General

1. Unesco should undertake a comparative study on the ways in which educational research is organized in a selected number of countries. Unesco should also prepare a document on the utilization of research for education, treating education as a lifelong process. This document should be based on contributions of specific modes of application of research findings with the help of specialists from different countries and should be of an analytic and evaluative nature.
2. Given the importance of basic research both for dealing with problems that arise in the future, and for enhancing the quality of applied research, Unesco should encourage Member States to provide adequate funds to sustain basic research in education.
3. The relevance of applied research for education should particularly be established in the light of systematic needs assessment of potential users and prevailing educational conditions. In order to devise coherent programmes of applied research related to either implicit or explicit needs of policy-makers, administrators and teachers, it is recommended that national authorities consider the following action:
   - (a) to encourage production of regular, up-dated reviews of research in each relevant area in order to identify unexamined issues;
   - (b) to promote consultations between researchers and practitioners in order to discover the problems that are amenable to research and to establish priorities among them;
   - (c) to prepare from time to time state-of-the-art reviews on specific issues in education such as pupil achievement, vocational guidance and educational materials;
   - (d) to prepare review papers on information needs of key desk officers in the Ministries of Education, especially in the developing countries.
4. There is often a time-lag between the need for research results for taking decisions by policy-makers and the actual availability of research findings. National authorities should consider the following actions in order to reduce the time-lag between research and utilization:
   - (a) to foresee the problem or priority area in, for example, a forthcoming educational plan and mount research well in advance;

(b) to introduce into a particular educational programme a component of formative research with a view to improving the outcomes on the basis of concurrent research components;
(c) whenever a decision has been made on an ad hoc basis, to introduce evaluation research to improve future action.

II. Research

5. It is suggested that the national authorities may consider the following investigations:
   (a) to study at the national level the procedures of needs assessment concerning educational research for different categories of users such as policy-makers, administrators, curriculum designers and teachers;
   (b) in the light of the four conceptual models of the research utilization process identified during the symposium (decision driven model, knowledge driven model, general enlightenment model and social interaction model) to analyse selected research projects at the national level in order to understand the relationship (i) between research and decision-making and (ii) between research-based decision-making and its implementation regarding different levels and types of research.
6. It has been reported during the symposium that intermediary agencies and personnel are useful in transferring knowledge between producers and users for the effective application of research findings in education. Unesco should initiate a survey in order to identify and assess the various modalities already developed by some Member States to this end.
7. Unesco should organize an international inquiry on the statutes, objectives and methods of research units of any kind dealing with out-of-school education, with particular reference to participatory research.
8. Unesco should consider the possibility of organizing:
   (a) an interdisciplinary seminar on research concerning child development by inviting contributions from various disciplines so as to interlink the physiological, mental and behavioral aspects of development in accordance with the physical and social environment;
   (b) an interdisciplinary symposium on the process of learning in respect of children and adults;
   (c) in view of the fact that interaction between culture and education has not so far been well explored, an interdisciplinary research seminar on 'the influence of socio-cultural traditions of different societies upon the acceptability of innovative projects in education'.
9. In the perspective of the International Youth Year (1985), Unesco should encourage Member States to develop and strengthen co-operation between pedagogical institutions and other structures of educational research on the one hand, and the research centres and institutes for training and information of youth on the other.

Further, Unesco should consider the possibility of organizing an international meeting on the theme 'Research on youth in the perspective of educational research and its contribution in stimulating participation of youth in social life'.

III. Dissemination

10. One of the key factors in the improvement of educational practice is effective and timely dissemination of research information. This should be developed as an interactive process between researcher and users. For this purpose, a variety of procedures should be developed and followed according to the category and size of the target user population. In addition to the publication of research reports in different versions (full report, brief summary, press kits, etc.) preparation of surveys, use of journals, mass media, information storage and retrieval systems, training programmes and orientation

seminars should be considered. Some examples are:

(a) for teachers: (in school and out-of school education	- use of teacher journal - integration of the topic in pre-service and in-service teacher training programmes - use of teacher unions, congresses and seminars - use of school libraries'teacher libraries - participation of teaches in research activities
(b) for planners	- establishing educational data base (statistics and their analyses) - state of the art reports of international educational research on future developments - interdisciplinary analyses (economics of education, etc.)
(d) for administrators:	- short summaries of research findings - quick question-answer service for decisions under time-pressure - taking into account research findings in the drafting of legal, reglementary and administrative texts
(e) for parents and the general public	- involvement of educational research interpreters (journalists and editors of educational desks in radio and television stations) - in research conferences, seminars, etc. - reporting on new research findings in meetings of parent associations - -using mass media to inform the wider public including youth - allowing parents to visit experimental schools

11. Research projects should be so organized and funded as to allow an adequate period after their completion for dissemination of the findings and consultation with potential users concerning their utilization or application.
12. Motivation on the part of educators is necessary for the effective use of research results. In order to involve the potential users of research findings, participatory research procedures should be adopted whenever possible. Educational authorities should devise appropriate mechanisms to stimulate different categories of educators to participate in the research process and in the application of its findings, as a normal part of their work.

13. In the bibliographies on research, inventories of different media such as films, video cassettes, etc. concerning research should also be included.

IV. Training

14. In order to enhance the use of research findings, it is necessary for educational practitioners to: (a) understand the research findings and their implications; (b) organize and synthesize these findings with existing knowledge and experience and then (c) apply the synthesized knowledge to pertinent educational problems and practices. Such competence should be developed in educators of different categories through per-service and in-service training activities, special training programmes, orientation seminars for senior administrators, etc. These activities should specifically emphasize the ways and means of applying research findings and not research methodology as such.
15. The training programmes for researchers should include skills for presenting results in brief and comprehensible reports for different categories of users. Curricula of research courses should accordingly be modified.
16. Seminars and workshops for researchers and users should be organized periodically at the local, national, regional and international levels. Research-user seminars will ensure better understanding and use of research results on the part of the practitioners and better understanding of the problems that the practitioners face which call for research on a priority basis and will contribute to the improvement of educational practice.

V. International co-operation

17. In order to better develop co-operation between developing and developed countries with a view to narrowing the gap existing between them in matters of educational research:
    (a) Unesco should organize regional and international meetings on the problems of educational research in developing countries, inviting participants from both developing and developed countries;
    (b) research programmes on education and training both in and on developing countries undertaken by foreign experts should involve more active participation on the part of national researchers and both procedures and findings should be fully and systematically shared with them.
    (c) Unesco should consider the possibility of a study on deontological problems in bilateral and multilateral educational research.
    (d) an overall strategy should be worked out for development of educational research capacities and infrastructure in developing countries.
18. The following areas of co-operation will become particularly important at the international level during the next few years: (a) the retrieval and dissemination of information relevant to educational research; (b) the development of research methods and techniques and training of researchers; and (c) the critical analysis and synthesis of the results of scientific studies with the aim of producing new and more reliable knowledge.

Recommendations for Africa

(Ibadan, March 1987)

Improving the research environment

1. A predetermined percentage of the total education budget in each country should be allocated to research.
2. Industrial and commercial establishments should be encouraged to support research financially.
3. Particular attention should be paid to methods of training researchers (see later recommendations).
4. In order to maximize research manpower, consortiums of educational researchers within each country should be formed.
5. There should be a clearing-house in each country for depositing research reports and findings. Countries that already have such clearing-houses should encourage them to be more functional. Research information in such clearing houses should be computerized as much as possible.
6. There should be research education for policy-makers, administrators and teachers.
7. Communication skills of researchers should be improved to help communicate better with policy-makers and other potential users of research findings.
8. The idea of education supplements to daily newspapers (for example, the *Times Educational Supplement* in United Kingdom should be introduced into newspapers in African countries to foster the dissemination of research findings.
9. A digest of educational research findings should be periodically published centrally in each country.
10. African countries should explore Unesco's extra-budgetary funds for establishing their clearing-houses.
11. Research should be linked to the world of work partly to make such research more relevant to the world of work, partly to encourage greater financial input from industrial and commercial establishments and partly to promote the establishment of a research tradition in the entire populace.

Organisation and management of research

1. The role of universities and other tertiary institutions in promoting research was emphasized. Two strategies were recommended for increasing research output: (a) the creation of special research units within universities which would involve participation of research personnel from various departments of the university; and (b) the integration of research and teaching by allocating specific amounts of time to the two functions as, for example, in Senegal where the College of Education allocates 8 hours of teaching and 4

hours of research per week for teachers and 4 hours of teaching and 8 hours of research per week for researchers.

2. Sections of ministries labelled 'Research Units' should be staffed by trained researchers.
3. There should be closer interaction between research units in universities and those in ministries of education and other research agencies.
4. Ministries should commission research studies to university personnel thus promoting chances of immediate impact on policy.
5. Clearing-houses should summarize research findings from various sources to promote longer range impact of research on policy.
6. Criteria of funding research as stated in section 3.2.2 are accepted. Three additional criteria were recommended, namely: (a) priority level of the research; (b) the operational strategy of the research (i.e. whether by a team or an individual; greater priority should be given to team research); (c) relevance to national objectives.

Training of researchers

1. Researchers should be trained by direct involvement in the research process.
2. Linkage programmes whereby training is done at established centres such as the ICEE in the University of Ibadan (for Educational Evaluation) and the Kenyatta University (for Curriculum Development) can strengthen training at regional level.
3. Expertise from several African countries should be periodically pooled to give short intensive courses in research at sub-regional level.
4. Where training abroad in developed countries is used, beneficiaries of such training should be located in educational or research institutions where they can lead to a multiplier effect through training of future research personnel.
5. Already existing centres of excellence for training of researchers in African countries should be strengthened and made to expand their programmes so as to increase their productivity in the region.
6. Trainee researchers should have short attachment periods (2-3 months) at appropriate institutions for training in specific research skills such as data processing and analysis by computer.
7. Staff development programmes should be vigorously pursued by research agencies and institutions.
8. There should be periodic attachment of top university research personnel to government research agencies and vice versa for the purpose of training younger research personnel.

Determination of research priorities

1. It is possible to have multiple central mechanisms for co-ordination of research for example for Government agencies and for universities. However, it is desirable that there should be one such agency for overall co-ordination.
2. Such a central co-ordinating agency should be largely autonomous.
3. The head of any research institution must have research training and competence and administrative ability.
4. Determination of research priorities, even if centralized, should be based on wide consultation with relevant research agencies and individual researchers.
5. The concept of academic freedom in the universities makes it essential that there should be flexibility in adopting centrally developed research priorities.
6. Lists of educational research priorities should be sufficiently comprehensive to allow for the identification of immediate priorities and short-term priorities.
7. There should be two stages in the identification of research priorities: (a) specifications of broad areas for research; (b) identification of specific priorities within each broad area. Thus:

Priority level	Broad area	Specific area
Immediate		
Short-term		
Long-term		

8. In addition, the already completed research projects should be listed.
9. Criteria for determining priorities should include:
   (a) political, social and economic considerations;
   (b) existing government policy documents (for example, National Development Plan, education policy documents; recommendations from conference reports;
   (c) scientific consideration;
   (d) research environment.
10. Priorities may change from time to time depending on changes in the research environment. Therefore there should be a yearly review of identified priorities.

Link between researchers and policy-makers

1. There should be a deliberate policy of promoting interaction between researchers and policy-makers.
2. Government research agencies and ministries of education should involve other researchers (e.g. from universities) at the planning stage of research projects.
3. Each research institution should devote at least one day a year to organize an exhibition of its research findings and documents.
4. The central agency responsible for research co-ordination should regularly present digests of relevant recent research to meetings of policy-makers or advisers such as the Joint Consultative Committee on Education (JCC) and the NEC in Nigeria.
5. A research policy committee consisting of administrators, policy-makers and researchers could be formed to determine research priorities and policies (as in Thailand) and commission studies.
6. Conferences of professional and other educational bodies should involve administrators and policy-makers for greater co-operation.

Dissemination and utilisation of research

1. The creation of multiple networks rather than just one network should be encouraged. Such networks could be created by central agency, academy of education, professional associations.
2. Information from regional networks such as NEIDA should also be disseminated through national networks.
3. Greater emphasis should be placed on using locally produced paper for journals even if of inferior quality.
4. Publishing houses should be encouraged to take over production and distribution of journals on behalf of the various organizations in order to improve distribution and accelerate production.
5. Only printing houses with the most modern equipment should be used for the production of journals.
6. Where possible, camera-ready copies of the journal should be made separately before the printer is brought in.

Regional consultation on educational research and decision-making in Latin America

Conclusions and final recommendations

Lima, 1987

Conclusions

In the light of the participants' experience as reported in their statements, the Consultation came to the following conclusions.

1. Research was acknowledged to have been of little use in modifying policies in Latin America, and was likely to become even less useful in the future if no specific action was taken to link research and decision-making.

   Generally speaking, this state of affairs was to be explained by reference to several factors:

   (a) In various national contexts, education had been given low political priority and had not occupied a central position in national plans. This situation is linked to a relative crisis in education resulting from the fact that the hopes surrounding the educational models introduced in the 1960s had by no means been fulfilled;

   (b) There had been a lack of political awareness about the importance of linking research with decision-making;

   (c) The following characteristics of research in Latin America which hampered or set limitations on the link-up with decision-making were also pointed out:

   - research had been conducted in an isolated, piecemeal and often individual or individualistic manner, giving rise to a great many disconnected projects;
   - adequate human and material resources had not always been available;
   - theoretical models with a limited capacity for providing solutions had been used and the approach to educational processes had been insufficiently interdisciplinary and scientific;
   - the research undertaken had not, on the whole, been re-attuned to political requirements;
   - arrangements for disseminating research findings had been inadequate.

   (d) The following factors were mentioned in connection with education policy:

   - research had usually had little influence on education policy;
   - on more than one occasion, the political authorities had made misleading use of research findings;
   - bureaucratic structures and administrative practices often conflicted with the principles of creativity required for the development of social sciences and tended to hold back research;

(e) finally, stress was laid on the absence of common ground between researchers and others involved in education. Each party had different views and was interested in different aspects of knowledge; they also differed in their social status and socio-economic position, and this on some occasions gave rise to negative attitudes and prejudice on the part of researchers towards practitioners, and vice versa, thereby impeding the flow of communication.

2. One basic factor explaining the absence of links between educational research and decision-making was the lack, in the various countries, of a scientific policy of focusing research efforts on significant problems of policy.
3. There were different spheres of research which were not linked or inter-connected: state and private universities, private research institutes, research units in planning bodies and the innovations or experiments carried out in basic educational practice. It was also noted that the conditions in which these various bodies carried out their research differed widely.
4. It was considered that the link between research and decision-making warranted study, taking into account the different levels of the system at which decisions were made: national, state, local, institutional and classroom. In fact, the problems of link-up and their possible solutions varied from one level to another.
5. The existence of a hidden agenda and unstated underlying assumptions on the part of both researchers and decision-makers was another reason for the poor co-ordination observed.
6. Experience also indicated that, to improve the prospect that research would be used in educational policy-making, the product as well as the process of research had an important role to play. In that connection, it was noted that the participation of a variety of agents in the research process improved the possibilities of its utilization in educational policy-making. Cases were also mentioned in which scientific knowledge was imparted throughout the research process and not only when its results were disseminated.
7. Several reports referred to research being carried out in response to requests from decision-making bodies or educational establishments; in such cases the probability that the research findings would be used seemed much higher.

Recommendations

In view of the foregoing, the working groups recommended strategies to counter the tendency restricting the link-up between research and educational policy-making.

As a general recommendation, it was suggested that, with the support of Unesco/OREALC, the organizations concerned should implement the recommendations relating to the training of researchers and the dissemination and exchange of research findings made at the second meeting of REPLAD, held in November 1986 in San José, Costa Rica.

A set of strategies relating to a scientific policy, research characteristics, the training of researchers, priority issues, dissemination and research funding was also proposed.

1. *Achieving thematic coherence and the establishment of a scientific policy.*

(a) An initial strategy would seek to make the subjects and areas on which researchers worked thematically consistent with the problems that decision-makers had to tackle. That coherence should rest on a basic consensus as to country's problems in the sphere of education policy, from which a number of basic themes should emerge of relevance to social priorities and/or science policies and consistent with each country's national education system;

(b) That basic consensus should lead to a scientific policy that laid down priority lines of educational research and made it possible to channel research efforts and investment. That policy should provide for short- and medium-term research plans;

(c) Without prejudice to the necessarily national character of the scientific policy, it was suggested that general guidance might be provided by the educational issues analysed and the recommendation formulated at the second meeting of the Intergovernmental Regional Committee for the Major Project in the Field of Education in Latin America and the Caribbean, held in Bogota from 24 to 29 april 1987. That recommendation aimed to facilitate the attainment of the objectives of the Major Project, namely:

- to provide eight to ten years' basic general education for the entire school-age population by the year 2000;
- to eradicate illiteracy in the region by the year 2000;
- to improve the quality of education;

(d) It was pointed out that to arrive at such a minimum consensus and to introduce a scientific policy successfully, bureaucratic methods could not be used. Several other types of action were suggested, most outstandingly those prompted by grass-roots educational requirements; those emerging from political activities within parties; and those developed by the scientific community interacting with decision-making bodies and other educational workers in forums where they participated jointly. In any event, emphasis was laid on the need for researchers, planners, decision-makers and sectors representing education and the populationn to be responsible for and committed to the preparation of the agenda for effective changes in education policy and the identification of research topics;

(e) The framing of a scientific policy called into question the current epistemology, which claimed that science was and is self-evidently neutral and objective and had held historical sway in Latin America. It was assumed that this approach with its underlying assumptions was an obstacle to the performance of socially relevant research work; emphasis was consequently laid on the importance of the researcher's being aware that his or her research work is always a political act, which implies a political stance, having its place within and acting upon a particular political context.

2. *Ways and means of conduction and organizing research work*

(a) In order to transcend the limits set by traditional research methods in Latin America, it would first be necessary to effect a change in outlook and to upgrade researchers' professional competence. To that end, it was proposed that scientists should be made aware of the need to:

- recognize educational problems as socially and politically relevant;
- adopt a pluralist attitude precluding dogmatic and unfounded beliefs;
- adopt an open-minded attitude, within their fields of research to flexible lines of approach which conformed to basic standards of scientific quality and social commitment and enable them to consider using research methods and instruments that were not necessarily orthodox but are suited to the requirements of the problem in hand;

(b) it was suggested that interdisciplinary research teams should be formed and strengthened, thereby helping to eliminate the weakness of educational theories which were only tenuously connected with disciplinary studies;

(c) it was unanimously pointed out that there was a need for research centres with a critical mass, records of earlier research and scope for continuity in their work;

(d) it was recommended that the significance, scope, limitations and/or advantages of research conducted in response to requests from state or community education organizations be studied. In that context, it was suggested that a distinction be made between traditional research and a new concept of research as a means of changing existing situations;

(e) the value and the prospect of application, in different contexts, of methods designed to link researchers to other professionals throughout the research process should be examined;

(f) lastly, decision-makers at different levels should be encouraged to request and make use of research work.

3. *Training of researchers*

(a) with regard to the training of researchers, the groups stressed the need to distinguish between different levels of training, according to the different research subjects and the related areas of professional activity: professional researchers, teachers, administrators and planners. It was therefore recommended that all those involved in educational work be given training in research. That training would entail development of the ability to take a scientific approach to daily work by making each professional capable of critical reflection on professional activity and on the aspects of a particular context, and of finding alternative answers to problems arising.

(b) at this general level it was recommended that:
  - training in research be provided through in-service training courses, workshops and seminars;
  - teaching materials for training, further training and refresher courses be developed so that staff working at different decision-making and executive levels of the education system become familiar with research methods and techniques.

(c) with regard to the training of researchers, it was pointed out that:
  - one possible means of providing training for researchers in education was to organize traineeships for university graduate and post-graduate students whereby they would collaborate in ongoing research under the supervision of a more experienced researcher. That formula could be strengthened by setting up co-operative networks, at national and regional level, for the exchange of trainees. It was also considered desirable that foreign universities of recognized standing in the training of research staff should participate in the scheme by negotiation, on condition that centres sending and centres receiving trainees share responsibility for the choice of the beneficiaries' research projects;
  - training, at both the undergraduate and postgraduate level, should allow time for practical research, striking a balance between research and academic teaching requirements;
  - in both governmental and private research centres, the future researcher should be given the opportunity gradually to become a member of a team of experienced researchers under a programme that provided for such a gradual development;

(d) to strengthen training in research for planners, administrators and teachers, it was suggested that:
  - various changes be made to the curricula and types of training prevailing in the region with the object of upgrading and increasing the amount of scientific training. It was recommended in particular that teacher training centres at the different levels should introduce a research component into their professional curriculum, on the grounds that research methods were not merely a subject to be taught but also working tools and a teaching strategy;
  - serving teachers should be provided with the material and administrative conditions that would enable them to think about and take responsibility for the social aspects of their work and help them to take an interest in the quality of their output rather than merely fulfilling the norms;
  - individual incentives should be given to educational staff to seek to put into coherent shape and to communicate the knowledge derived from their own experience and machinery should be set up to disseminate the results of their work;
  - analytical workshops should be held to enable education personnel and researchers to work together in trying to improve daily practice.

5. Research priorities and themes

Listed below are the research themes that the group considered important in relation to the priorities of education policy implicit in the Major Project in the Field of Education for Latin America and the Caribbean. These themes are recommendations which are obviously not binding obligations. They have been classified under each of the three objectives of the Major Project:

(a) having regard to the objective of providing provision of a minimum of eight to ten years' education for all, it was considered appropriate to conduct:
  - a study describing the present state of the art, covering all the research work done on repetition and drop out and on the strategies that some states had adopted to reduce those problems;
  - research on underprivileged groups (in some countries, those might be groups living in marginal urban areas; rural groups in others, and in others again, specific ethnic groups);

- research on grass-roots educational requirements which were usually presented piecemeal and with little clarity;
- research on the educational, administrative, operational, financial and legal coherence and logic of the new eight to ten years' basic education, which could not be a mere aggregate of the traditional pre-school, primary and secondary levels, since these usually operate in watertight compartments;
- research on the educational problems caused by language and cultural barriers that impeded progress within the system;
- research on the context of scientific and technological progress in which many children today found themselves;

(b) with regard to the second objective, concerning the eradication of illiteracy, the following research themes were proposed:

- research on post-literacy instruction for the newly literate and on their integration into a form of non-formal and lifelong education which would improve their quality of life;
- research to identify and study past experiments in the pre-school education of children from 0 to 4 years of age by means of family training under lifelong adult education programmes;
- a study of adult education experiments conducted among under-privileged groups with the aim of enlisting the economic, social and political participation of those groups;

(c) having regard to the objective of improving the quality of education, the following were considered necessary;

- a study on the state of the art of experiments by different countries to improve the quality of education;
- an evaluation of the type of values, habits, attitudes and behaviour patterns acquired in the education system (i.e. what pupils were taught about society and their place in it);
- related research on curricula for marginal urban and rural sectors of society with particular reference to such aspects as education for democracy, productive work, fostering of creativity and critical analysis;
- research on the role of the teacher, taking into account the impact of endogenous and exogenous variables and the ways in which they influence classroom practice and the quality of education;
- research on teachers' attitudes to and views on social change, their ability to evaluate their own actions and their participation in curriculum design;
- research on the links between teachers and society and on the effects of the educational and cultural endogamy supposed to reign within the generally closed subsystem of the teaching profession;
- a study on the effects of the rotation to teachers on the quality of education;
- research to evaluate the decentralization, regionalization and municipalization of education in the countries of the region, in terms of their social effects on the distribution of power, equity and the quality of education;
- research on bilingual cultural education and on socio-linguistic problems;
- research on the effects of the media and the ways in which they were used for educational and cultural purposes;

(d) in addition, at a more general level, the following were recommended:

- a systematic assessment of experiments performed in the region on different ways of linking research work and decision-making, including an evaluation of their results;
- a study of the impact of the spread of educational research in the region;
- analysis of the factors hindering change in the education sector;
- a review of the way in which proposals for change arose and decisions were made in the education sector;
- investigation of how society and those active in it saw the education system, in order to determine which changes were or were not possible.

5. Exchange and dissemination of research findings

On this point, it was recommended that:

(a) governments introduce policies to lower the cost of dispatching printed documents relating to education by mail, so that educational research findings might be disseminated as widely as possible;
(b) meetings of researchers, teachers and politicians be promoted and held at national, sub-regional and regional levels;
(c) more regional journals be published to disseminate information on educational research;
(d) educational documentation centres in the region endeavour to use compatible documentary languages to record and process data on educational research;
(e) machinery be set up to disseminate information and make it readily accessible and comprehensible to those at different decision-making levels: public opinion, teachers, administrators, researchers, teacher trainers and politicians. Those strategies for the circulation of research findings should be geared to the special needs of the users for whom they were intended;
(f) efforts be made, within REPLAD and other established networks, to identify and store educational research output in each of the countries of the region; action be taken, through the same networks, to identify centres through which information was exchanged on research and experiments in educational practice, by making national arrangements for a systematic supply of information, such as a regular newsletter or report;
(g) action be taken to make different types of users aware of and familiar with the possibilities of rational use of the available information;
(h) documents be prepared for use in teacher training which incorporate the findings of research in Latin America in the social sciences;
(i) research findings be used in in-service training courses, as an important means of disseminating them;
(j) research findings as a rule be made public in order to facilitate discussion.

6. Research funding

With regard to research funding, it was recommended that:

(a) institutional research budgets be stepped up so that relatively stable interdisciplinary research teams might be formed with adequate resources for their work;
(b) available resources be distributed and husbanded in such a way as to attend to scientific and social priorities but also with due regard to their political desirability; more specifically, it was suggested that the funding schedule be based on the evaluation of results;
(c) national research priorities be incorporated in each country's National Plan as a means of improving the countries' negotiating position with international funding organizations; cases were mentioned, and deplored, in which certain external funding organizations had imposed research subjects and/or methods that were not consistent with national priorities;
(d) the Bureau of the Intergovernmental Regional Committee for the Major Project be requested to submit to the General Conference of Unesco a request for provision to be made in its budget for resources to support the dissemination of educational information in the region.

Main conclusions of the regional consultations for European countries

Garda, 1986

Notions of research vary substantially between different countries. In many countries research is, above all, the result of experimental inquiries whose analysis and interpretation derive from inductive or hypothetico-deductive procedures. In other countries descriptive statistics (and even school statistics), presented without analysis and without an experimental framework, are considered to be research. In yet other countries, there is as yet no tradition of empirical research in the field of education, nor even funds to finance it.

Interpreting the responses to the international survey

Much of the discussion was concerned with the significance of an international survey carried out by means of questionnaires sent to Member States through their Unesco National Committees. It is clear that this type of survey has a number of comparative advantages: it makes possible the assembly of information deriving from appropriate administrators. and draws the attention of governments (or at least their relevant departments) to important questions related to educational policy; and above all, it is a privileged method through which the experiences of different countries can be made known, and through which, therefore, international debate can take place on a much greater base than would be available to an individual researcher or to an inquiry carried out by a national body. The exceptionally large number of national replies received (more than seventy) shows clearly the degree of interest which the Unesco inquiry raised in the Member States.

But it was also clear that such inquiries have their limits:

- the information thus provided may be only partial;
- gaps and errors in the information provided can sometimes be detected, and are not always easy to rectify without going beyond the responses to the questionnaires;
- answers from different countries are not always strictly comparable;
- answers reflect, above all, the points of view of the decision-makers (at the political and/or the administrative level).

International comparability of the responses

This question is of particular interest to specialists of comparative education and it is therefore not surprising that participants gave particular attention to it.

Problems were posed regarding all the elements of the questionnaire. As regards research organizations, it is not easy to classify them in a single way according to the categories proposed in the questionnaire. In some cases certain organizations which are directly linked to a Ministry may be as autonomous as other institutions which are not so linked administratively.

The particular constitutions of academies of science (or academies of pedagogical science) in Eastern European countries - countries which have centralized economies - have no equivalence elsewhere.

Before an adequate comparison of research structures can be made, it is necessary to be able to understand the roles which they play in each country and in each educational system; and above all to be able to relate their main attributes (which might be represented, up to a certain point, by flow charts and descripions of their statutory powers) to their actual functioning.

The same is true as regards the procedures for identifying research priorities, the definition of objectives, the implementation of decisions taken, and the evaluation of researches.

As to statistical data, there is an evident lack of comparability, especially in regard to financial resources available for educational research. Figures cited, whether in national currencies or as a percentage of reources devoted to education, differ not only as a function of the extent of the domains covered under the heading of 'research; (as has already been said), but also because public accounts do not often distinguish research spending in the budgets of Ministers of Education. Only in those cases where national studies on research expenditure have already been made is it possible for those who filled in the Unesco questionnaires to give a meaningful response on this point; but, even in these cases, differences of definition, of methods of calculation, and of areas covered in the survey make comparison of statistical data difficult.

It is evidently impossible to expect complete and fully comparable results from a single survey questionnaire sent to the national committees of Unesco. However, one can expect that the interest created by the survey (which appears to be demonstated by the very high response rate) will encourage national authorities to advise the development of such studies within a programme of research over several years, rather than only on the basis of a survey carried out by correspondence.

Reponses make little reference to difficulties arising from differences of view between researchers, teachers, and those responsible for policy and administration. The meeting of researchers was naturally particularly sensitive to these differences. The main points of discussion were the following:

(a) the respective points of view of the three categories concerned with educational research;

(b) the divergent nature of their points of view and their objectives;

(c) difficulties of communication and of harmonistion of points of view within the framework of the elaboration and implementation of national policies for educational research.

Attention was drawn to examples which underline the contast between official points of view and those of researchers regarding themes which do not necessarily correspond to government priorities. Even more evident was the gap between the results of researches and their utilization when they do not confirm the soundness of decisions taken.

One participant suggested that researches are for the most part used by educational 'decision-takers' to legimate their pre-existing opinions and the decisions which they have already taken or expect to take. Where researchers suggest some improvement, they have some chance of being taken into account, but where they are in contradiction with results which decision-takers expect, they are ignored.

These divergences, which often result in tensions, are not reflected in the responses to the survey. This might have been expected because the role of decision-takers is not to emphasize areas of dissension. Not unnaturally, they try not to worsen the situation by revealing them. But, for researchers, the questions involved are important and deserve a greater depth of analysis.

It would be unrealistic to expect that the different points of view - those, on the one hand, concerned with action and those, on the other hand, concerned with knowledge - could be resolved simply by meetings and dialogue. Nevertheless, at least some initiatives of this kind would allow the participants on both sides to better appreciate and to understand the differences in their respective roles. As one participant emphasized, educational researches are only likely to be accepted and utilized to the extent that they relate to the objectives and strategies of their users.

The teachers themselves constitute another type of user of educational research who pose specific problems which are very different from those already referred to.

Participants in the Garda meeting particularly noted teacher resistance to reerchers and to research results. One factor often mentioned is the linguistic obstacle in that researchers (partly because of their professional interests) are often concerned in the first instance to communicate with each other in language which is not easily understood by teachers. A growing number of countries have been concerned to ask researchers to publish the results of their work in ways more accessible to their potential users, or to produce 'state of research' studies on themes where practical application by teachers is possible. Teacher training itself tends increasingly to include an element of research training, or at least a sensitization to the nature of research. In-service training programmes are also focused on these questions: various experiments have been mounted in which meetings between researchers and innovators on the one hand and teachers on the other have been arranged. There have also been many other experiments of a similar kind, but the responses to the questionnaire ignored these. It would therefore be interesting to complement the responses received by other information already collected on these subjects by Unesco. It would, however, also be important not only to diffuse a description of these experiments but also, and above all, to evaluate the results obtained in terms of efficiency of education resulting from the use of research.

Suggestions for follow-up work

Even if one cannot expect researches to have direct application in the classroom (except in the case of curriculum research and development research), certain experiments would seem to be more effective than others in favouring the use of research. It would be useful in educational research policy to profit from the experience of other countries, subject to proper account being taken of specific aspects of each context. The objective of Comparative Education as a university discipline is precisely to contribute to good practice in international comparisons. Its principle contribution is to evaluate national experiences and to throw light on the different elements of the national context within which they take place. Such comparative studies of education can help to correct those often distorted representations of overseas experience or of models often invoked in national debates (particularly by decision-makers, the media and different sectors of public opinion) as arguments in favour of particular reforms. They can also draw attention to the risks involved in international transfers of experience and in foreign models, especially when proper account is not taken of specific national contexts. All these considerations lead to a recommendation that national case-studies (preferably in depth) should be undertaken within a systematic comparative framework to enable results obtained by the questionnaire survey to be enriched and complemented.

Participants understood that such studies could not be envisaged except within the framework of future Unesco programmes. They therefore concluded their discussions by making a number of realistic short-term recommendations.

1. There should be a publication which would make known the results of the Unesco programme on research policies in education. It might further be hoped that the interest already shown by Member States for the survey might be reinforced by the results obtained, and also by the collaborative experiment between the Unesco Secretariat and the World Council for Comparative Education Societies. If so, this interest might lead them to decide to follow up and further deepen the programme in new ways, for example, by taking account of suggestions made during the Garda meeting and, in the near future, by similar meetings arranged in other regions.
2. A possibility raised at the end of the meeting, aimed at a concrete follow-up of the discussions, was that several participants might try to organize meetings to consider the issues mentioned above within a national framework and to explore the possibility of holding such meetings respectively in the Federal Republic of Germany, in Poland, in France and in India on the theme 'The Role of Educational Decision-Makers, Researchers and Teachers in the Development of Educational Policies'. By this means it should be possible to develop in a concrete manner a deeper understanding of the problems, experiences and difficulties involved in ensuring the participation of all three groups of actors in educational research policies. It should thus be possible to avoid superficial generalization in future international meetings on this subject; it would, however, be desirable to invite to these meetings experts from other countries to enrich the debate and to prepare for the later exchange of experiences at the international level.

International French-language seminar on the dissemination of educational research findings

Paris, 1984

Conclusions and recommendations

The work of the seminar shows that the dissemination of research findings cannot be studied in isolation. In fact, the proposals form a plan for action at several levels. It is of the utmost importance to ensure both general and rapid dissemination of the findings of research on education. However, this can only be done if the practical conditions have been created to make communication possible between the various types of workers involved, including a general desire to communicate. The proposals therefore deal to a great extent with bringing about situations providing opportunities to meet. Dissemination, communication and meetings are possible only if steps are taken to provide training, in particular training for the different types of worker found to be involved, but also for other types of worker needed to fill the present gaps in the chain.

In order to encourage a demand for research, use should be made of situations that disturb as little as possible vested interests and established attitudes, while offering reasonable reassurance precisely because of the recourse to research findings. Team-work, encouragement for innovative projects, taking advantage of particular sets of circumstances, such as the institution of a reform or current public discussion of educational matters are all examples of situations which should be used to create a need for access to research findings.

An awareness to learn how to communicate extends also to all documentation personnel, who for long have been regarded as 'curators of knowledge', or as responsible for meeting already well-prepared requests. In line with a trend which is already well established, the aim then is to associate them more closely with disseminating knowledge, and better still, producing it.

Lastly, the research process itself should be so devised and planned as to include the communication of the results.

Researchers are not compelled to study the possible consequences of their proposals and statements. Academic theses provide a very significant example. There is a common belief in academic circles that publication is a kind of reward, reserved for only a limited number of works. In other words, both public authorities and private individuals cease their investment in research precisely at the stage at which it might become beneficial to users.

The dissemination of research findings also poses a language problem. And since it is out of the question to ask researchers to modify their language, thereby perhaps jeopardizing the very coherence of their work, or to invite a 'practitioner-researcher' to imitate the language used in research centres of a conventional researcher to pretend to answer questions which he has not asked himself, it is only in terms of access that the problem of dissemination can be solved.

It ought to be possible to approach research of the conventional type using everyday language, just as it ought to be possible to embark on field research on the basis of a smattering of science. This again poses the problem of the language of documentation and how it should be structured.

Training

Six proposals concern the training of the various types of worker involved and the definition of their roles.

The training of educational personnel

1. The training of the various types of workers in education, whether teachers or administrative staff, must include, besides a basic knowledge of the research findings that affect them, an introduction to research techniques and means of access to information but above all, a systematic training in the collection of information, in order to ensure access to knowledge that is already available. Any training programme must therefore also teach the use of documentation and data processing.
2. Training must also include teaching people how to describe to others the activities or experiments they are carrying out and how to adjust the description to different categories of end-user. When the training programme includes the drafting of a report, students must be made aware of the need to determine the various categories of reader for which it may be intended and shown how to summarize the work carried out, single out key words and use the appropriate communication media for a particular purpose.

Training documentalists

Special attention must be paid to the training of documentalists, librarians and, in general, all those who are expected to share and redistribute information.

3. In their training, documentalists and librarians must be taught to handle types of media other than print. They should be able to handle audio-visual and computerized documents and to make them available to users.
4. Documentalists must be able to filter information. This requires the ability:
   - to analyse requests for information submitted to them by researchers. Practitioners or administrative or political decision-makers;
   - when appropriate, to produce intermediate documents corresponding to the users specific interests.

   The training of documentalists must cover both these skills;
5. Documentalists should be able to handle two types of 'private' language: that of the researchers, usually used in dealing with documents and systems for obtaining access to them and that of the information-seekers research, who are thinking much more of their objectives and the situations they are facing.
   National and international organizations for scientific and technical documentation should make sure that such practices are changed in such a way as to enable the two groups to understand one another, which is especially important in view of the increasing amount of information being produced.

Training researchers

6. Researchers' training should include not only familiarizing them with concepts and methods, but also giving them some notions of how to communicate. It should deal at least as much with attitudes as with know-how, and aim to enable students not just to produce theoretical papers of scientific reports, but also to communicate with the general public, using audio-visual and mass communication media if required. This implies:

- an ability on the part of the researcher to see the position of his work in relation not only to scientific issues, but also to specific problems and types of problems it is generally wished to tackle;
- an ability to match his language and the medium of communication used to the different end-users;
- an ability to use a variety of means and modes of communication.

New types of professional qualification

Bearing in mind the deficiencies and gaps found in the chain of communication, new types of professional qualifications must be defined and the corresponding types of professional worker trained.

7. In the sphere of education, the educational sciences departments of the universities should put forward training programmes for press attaches, for editors specializing in scientific papers, for writers on science media; these programmes should be tried out and, if effective, put into general use. A similar attempt could be carried out in training centres for journalists.
8. A first series of experimental activities in the main linguistic areas should be put forward by the international associations of the professions concerned, and the results compared under Unesco's auspices.

Planning how to disseminate research findings

Four suggestions were made:

9. Every research budget should make provision for disseminating the research findings. Dissemination should not be limited to the mere writing of a report and having copies made; it should also comprise the preparation of a series of information 'packages' of varying size and with various ends in view, using audio-visual methods or the printed word, together with ways and means of ascertaining users' reactions to them.
10. The research process should be programmed to include dissemination of findings and the feedback of information. Conventional research workers should not regard the final report simply as a signal to start another research project. Having researchers take part in training activities and also in decision-making will make them aware - whether they are conventional researchers or 'practitioner-researchers' - of their responsibility for what happens to the research findings once they are disseminated and encourage a critical view of the results of their work.
11. A specific function of educational research institutes should be to conduct research which makes it possible to put the knowledge already obtained, whether or not it concerns education directly, to operational use. Another function might be to give practitioners, decision-makers and those performing various functions in the mass media reports on the present state of theoretical and practical knowledge in regard to the question under discussion.
12. The danger of an information glut should be taken into consideration when drawing up a policy for publishing and disseminating research findings. All research and practice should give rise to the creation of different 'products'. Efforts to increase the circulation and improve the distribution of publications should be concentrated on reports of the types referred to in the previous paragraph.

Improving the participation and involvement of the staff concerned

It is not enough to modify the training provided for the different categories of staff. In centralized systems, which is what many educational structures are, research findings only reach the users in the form of either memoranda, regulation and draft reforms or 'consumables', such as textbooks, audio-visual programmes, teaching programmes, etc.

The following suggestions therefore have two aims: one is to encourage practical opportunities for communication, the other is to make suggestions for intermediary structures and in some cases for increased mobility among the staff concerned. These proposals are not exhaustive and depend very much on the situations actually existing in the various countries. Thus, in the socialist countries, the 'Teachers' Clubs' and the 'Education Consulting Centres' are places where there is real contact between practitioners and researchers, just as there can be in France in the 'Centres Regionaux de Documentation Pédagogique' and the 'Missions Académiques de Formation". The sabbatical year, originally a North American institution, is for practical purposes only open to teachers in higher education: it often enables them to see their own research in a broader context. If it became general, in the form of interchanges, it could cost very little and have much more far-reaching effects.

The same is true of the idea of 'pedagogical ecomuseums'. Just as in the case of industrial activities or natural resources, there are enough vulnerable areas in education that deserve protection and development. For instance, in a developed country like France, the device could promote conservation coupled with continuous innovation through the maintenance of institutions such as the Declorly school in Paris, the Pioulet school founded by Freinet in Vence, and a teachers' training college in a departmental capital and entirely free of university influence. In non-industrialized countries, it would be a way of maintaining traditional forms of education (*medersas* in the Maghreb countries, voodoo convents in Togo) while offering opportunities for encounters with today's world, for contacts and for research work.

Lastly, more opportunities for contact could be created. During the 1970s, various scattered local initiatives in the Federal Republic of Germany and in France gave rise to small meeting and information centres often called 'shops' (law shops, health shops and more recently science shops). A dozen or so French universities have launched similar experiments often linked with the sensitive issue of the environment.

A brief outline of the purpose of these structures may be in order here. In the late 1960s faculties offering direct access to information essential for the citizen were created in several European countries, under the influence of protest movements. They were in fact remakes of structures that had become fully institutionalized in the United Kingdom, such as 'teachers' centres", or citizens' advice bureaux. These are completely everyday sorts of places, which can perfectly well function on the premises of an association, in a shopping centre, or in public meeting-places, and which can ensure informal contacts and access to or the production of information as required. In a country like France, but also in the socialist countries, institutions such as regional or departmental centres can sometimes act in this way for teachers, but not for parents and still less for pupils. In other countries, a bookshop can perform this function to some extent, as can places where teaching material is demonstrated or produced.

Special large-scale events can also encourage contacts. In Italy and the United States huge conventions are organized, and in the United States these are regarded as a normal way of meeting one's fellow-workers. Austria regularly arranges *Wissenschaftsmessen* (science fairs) where research workers and scientists set up stands and where they are visited by a demanding public. The Colloque d'Amiens in February 1968 was a similar venture. The possibility of arranging such meetings specifically for developing countries should be given particular consideration.

Two proposals have been put forward in this regard, one on arranging for people to meet and the other on the mobility of the people concerned; four proposals deal with developing or creating intermediary institutions or situations.

Mobility

13. It would seem essential for continuing training/education ??? to include the participation of both practitioners and research workers in symposia and meetings organized by other professions involved in education. The awarding of grants to teachers to enable them to attend meetings of researchers should be one of the methods used by the authorities to ensure effective communication between research workers and practitioners.
14. Unesco on the one hand and national organizations on the other are requested to facilitate the introduction of original forms of sabbatical year, experimentally to begin with and subsequently as a general practice. It ought to be possible for sabbatical years to be offered to teachers at whatever level, and also to professional researchers and administrators. It would be an exchange system, in some cases on an equal-time basis, which would enable a research worker, for example, to spend a year as a teacher in a field

corresponding to his research subject, and a teacher, whatever his qualifications, to work for a year in a research centre or university. This exchange system could be operated between countries, so that, for example, a research worker from a developed country could work for a year as an ordinary teacher in a developing country, and vice versa.

Intermediary structures and institutions

15. Independently of the universities, traditionally responsible for obtaining and disseminating knowledge and for training, all institutions - in particular one concerned with continuing education - should conduct research and disseminate existing information. This implies redefining the qualifications required in persons responsible for training and education, and decentralizing research on a wide scale.
16. Since educational practice is an evolving phenomenon, it is proposed that a number of 'pedagogical ecomuseums' be established. One of the difficulties in making practical use of educational research findings seems to be that the historical dimension is lost. An ecomuseum is at one and the same time a way of preserving what remains of former practices that are constantly evolving, maintaining an activity and providing a centre for acquiring knowledge, exchanging ideas and making comparisons. Unesco is requested to help at the request of Member States, in keeping alive certain educational practices, as it does in the case of cultural practices and the cultural heritage.
17. It is proposed that professionals and their associations set up, on an experimental basis, a number of 'education shops' modelled on the health shops, law shops and science shops.

    The education shops might incorporate the following elements:

    - a meeting place to provide an 'open forum' where all that would be announced would be the subject and the introductory speakers, and where any person present could ask questions and/or provide information;
    - a system of automated access to documentation linked to data banks; a consultation centre; and
    - various means of producing documentation for distribution which would enable users to play an active part in the process of disseminating theoretical and practical knowledge.

Experimentation should show the comparative advantages of siting such shops on educational premises, commercial premises or association premises.

18. It is proposed that a number of large national or international meetings or conventions be regularly held, bringing together practitioners, research workers, decision-makers and the general public; these occasions would take the form of 'Education Assemblies' rather than of scientific colloquia, and would encourage the circulation of ideas and knowledge within the educational community by means of workshops, round-tables and perhaps an exhibition of work and products.

Here, too, special attention should be given to the situation of the developing countries, where such common action, and particularly the association between research workers and users, has not yet been established. Unesco, and also certain Member States, might provide assistance in organizing such conventions.

THREE SUGGESTIONS FOR FURTHER WORK

It was not the purpose of the programme to arrive at recommendations that could be made to governments. However, the international meetings that looked at the results of the survey and the other meetings organized on the subject thereafter on the initiative of several comparative education societies identified a number of questions which they felt could be usefully investigated in further depth, by joint discussion and by comparative studies. Three such questions that seem particularly important deal with the preliminary stage in the diagnosis of the present situation, how to improve the dialogue and relationship between researchers and decision-makers and how to improve the dialogue between researchers and teachers. The following paragraphs simply give a few brief pointers about the problems that could be studied under these headings.

To provide a suitable basis for the formulation of an appropriate educational research policy, a critical, quantitative and qualitative statement needs to be drawn up of each country's research output in the various fields of education. The replies to the questionnaire show that such information is rarely available and that studies on the subject are urgently needed. Experience has shown that a plan or reform has to be based on a critical assessment of the situation (often called a diagnosis); a preliminary inventory of the state of educational research is therefore necessary before objectives and priorities can be established. These diagnoses can be enriched by international comparisons, particularly if the criteria used have sufficient common ground. One idea would be to draw up a minimum list of comparative education research indicators as has already been done for scientific research and for educational planning. These would be indicators of human and financial resources as a measure of research potential and indicators of results as a measure of research output. A major advantage of these research inventories would be to enable qualitative diagnoses to be produced indicating the subjects that are most studied and those that are neglected. Here again, international discussions to agree on a standardized classification of research subjects and types are felt to be of the highest importance.

Relations between educational decision-makers and researchers are the occasion of various difficulties inventoried in numerous meetings and surveys, but studies of the impact of research on decisions are rare. This is unfortunate because such studies would bring to the fore the positive interactions that are to be observed in specific cases when the circumstances are right. These impact evaluation studies could give rise to fruitful exchanges of experience on those interaction mechanisms most likely to favour useful dialogue between these two categories of social actors, whose objectives do not necessarily converge of their own accord. The case-studies could be carried out within the framework of co-operative research programmes in which teams from several countries would meet for purposes of harmonization at the various stages of their work: formulation of concepts and fields of inquiry, study of existing research, and methods for analysing the data collected and interpreting results. Use could be made of the methods of international co-operation already experimented with by international teams or organizations such as the International Educational Achievement Project, the International Institute for Educational Planning, the International Education Institute, the International

Development and Research Centre (IDRC), the International Council for Educational Development (ICED), the BRIDGES and IIES programmes in the United States, the OECD's Centre for Educational Research and Innovation (CERI), etc.

Taking a comparative approach, co-operative programmes could study the various aspects of research policies where the viewpoints of decision-makers and researchers have necessarily to be brought into confrontation, namely the preparation, adoption and implementation of a national policy for research production, the orientation of research in accordance with educational policy requirements and priorities, the evaluation and distribution of research results and the use of these results to improve decision-making. The gap between the general awareness of the need for more educational research and the indecision that has existed for several years now in spite of so many declarations of intent could be the starting-point for some useful thinking but the analysis of positive examples would be no less necessary to facilitate the transfer of experience from country to country.

It would be useful to step up exchanges of experience in the field of relations between researchers and teachers (and other actors on the educational stage). Communication difficulties and obstacles have often been discussed and it is perhaps unnecessary to pursue investigations in that direction. It would seem advisable, however, to compare positive national experience where fruitful interactions between researchers and practitioners have been observed.

The international survey and the meetings organized by Unesco have helped to generate the active interest of the National Commissions and the education ministries and have also set things in motion in comparative education circles with the formation of a standing working party in the World Council of Comparative Education Societies which has initiated a number of meetings, studies and publications on the various aspects of educational research policies. The results of the programme presented in this study should therefore be regarded as an interim report rather than a final conclusion. It is in terms of the action taken as a result of this programme at the national and international levels that it will be possible to evaluate its impact on the research community and on governments.

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Dear Madam,
Dear Sir,

I have the honour to send you herewith a questionnaire prepared in conformity with para. 04211 of the Approved Programme and Budget 1984-1985 (Document 22 C/5), which provides for an international survey in 1985 on educational research policies in Member States and their links with educational decision-making procedures.

Apart from a section giving the 'background; of the survey, the questionnaire is divided into three sections: the first deals with the organization and management of research in education; the second with the determination of research priorities and the establishment of research policies within education; and the third with the dissemination and utilization of research findings. The results will form the basis of a comparative study to be carried out during 1986.

Given the fact that a member of national institutes and/or government offices would have a role to play in providing the information requested, I would appreciate your identifying these and requesting them to assist you in the preparation of a single composite reply to this questionnaire. For your convenience, I am enclosing three copies of the questionnaire; you can make additional copies if needed.

You are requested to send the composite reply of the questionnaire to Director, Division of Structures, Content, Methods and Techniques of Education, Unesco, by 15 November 1985 at the latest.

Thank you in advance for your co-operation in this matter.

Yours faithfully,

Harold A. Foecke
Deputy Assistant Director-General
(Regular Programme Activities)

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

Division of Structures, Contents, Methods and Techniques
of Education

International Survey on Educational Research Policies and their links with Educational Decision-Making Procedures

BACKGROUND

(1) The Second Medium-Term Plan, 4XC/4, paragraph 4024, stresses the importance of research in educational sciences and related disciplines for the improvement of education:

> In recent years, endeavours to develop the educational sciences have been marked by an increase in the volume of research and extension of the field which it covers. Going far beyond the art and science of teaching, the educational sciences have been enriched with inputs from other disciplines. . . The intensification of research in the educational sciences and related disciplines would therefore appear to be a necessity, as it is a factor making for the rationalization and, consequently, the efficiency of educational systems and the educational process. . .

(2) An International Colloquium, held in Romania in 1980 on the topic 'Research and Practice in Education: how to strengthen links between research and practice in order to improve general education' examined ways and means whereby research could be more effectively geared to the needs of education, with a view to making education more relevant to cultural and socio-economic development and increasing the internal efficiency of education. The participants in this meeting recommended that Unesco should undertake a comparative study in Member States in order to examine:

(a) the determination of research priorities;
(b) the organization of research;
(c) the procedures for disseminating results;
(d) the strategies for making use of research findings.

(3) In accordance with Unesco's Approved Programme and Budget for 1984-1985, Programme IV.2., 'The Educational sciences and their application to the renewal of the educational process' provides that an international survey on educational research policies in Member States and their links with educational decision-making procedures will be conducted in 1985 and that the results will form the basis of a comparative study during the next biennium (22C/5, para 04211).

(4) To this end, in consultation with the World Council of Comparative Education Societies (WCCES), the Secretariat has prepared a questionnaire which will be addressed to all Member States, in order to:

(i) gather data on methods used to achieve coordination between educational research and educational policy, planning and practice;
(ii) increase awareness of the need to prepare a national policy for educational research in relation to overall educational policy, educational needs and educational planning and practice by focussing attention in Member States on modalities existing (a) for orienting research activities according to established priorities and (b) for disseminating and promoting the utilization of research findings;

(iii) identify examples of good practice in this area, with a view to providing guidelines for those wishing to improve the existing situation.

(5) Different organizations, during the last decade, have carried out surveys on educational research policies and/or research and development in education (OECD, 1974; Council of Europe, 1979). More recently (1983), the International Development Research Centre has surveyed educational research environments in nine developing countries. The Secretariat now intends to fully initiate such a survey at the international level among Unesco's Member States and, based on the findings, to prepare a comparative study on the reinforcement of links between research and educational policy, planning and practice and to promote the development of research strategies and plans at the national level.

(6) For the purpose of this survey, educational research should be considered as the activities of research bodies, departments and faculties in universities, autonomous institutions, units within government agencies and other organizations, as well as individual researchers, aiming at gathering and analysing relevant and systematic knowledge and information about education. Educational research should not be narrowed down to pedagogical research, but include all kinds of research on education: philosophical, psychological, social, anthropological, historical, medical, economic and technical, etc.

(7) The following questionnaire is intended to assist Member States in their responses to the survey by focussing on the main issues to be considered. It is divided into three sections:

(A) The first, dealing with organization and management of research in education;
(B) The second, dealing with determination of research priorities and the establishment of research policies;
(C) The third, dealing with dissemination and utilization of research findings.

In each section there is a question of an open nature, so that respondents should feel free to develop more specifically those issues which correspond to their problems.

QUESTIONNAIRE

(A) Organization and management of research in education

This section focusses on problems of organization and management of educational research, such as programming, financing, staffing and relationships between the existing organizational structures of research in education. Although the ways in which institutional patterns are often somewhat differently structured, four major patterns can be identified:

(i) university-based research: departments, faculties of education, including doctoral students;
(ii) autonomous research institutes: academies of educational sciences, national pedagogical institutes;
(iii) research units within governmental agencies, offices responsible for statistics and forecasting, planning services;
(iv) research units within other organizations, such as scientific societies, teachers' associations, industrial, commercial, agricultural associations interested in education.

The Secretariat would be grateful if you could develop and comment upon the following points:

A.1. Could you give a short description of the main national institutes active in educational research? - What is their role and administrative framework?
A.2. Are figures available in percentage on the portion of the annual education budget allocated to educational research (specify if this estimate includes personnel costs or not)?
A.3. As far as the financing of research in education is concerned, what are the main ways or criteria to allocate funds to various research institutions or projects?
A.4. To what extent do research institutions outside the educational sector (e.g. institutes of economic or social research, various ministerial offices responsible for research) deal with or contribute to research related to education and what are their main topics?
A.5. Are there any international or foreign agencies participating in educational research in your country? If so, what is the role and responsibility of these agencies?
A.6. Staffing and training of researchers: Are there any programmes for training of researchers in universities or other institutions? Have specific measures been recently taken with the view of improving staffing and/or training in educational research?
A.7. Any other comments concerning this section.

(B) Determination of research priorities and establishment of research policies in education

It would be useful to know whether or not a structure for promoting and developing research projects exists in education at the regional, national or federal levels and, when there is a policy, what is the mode of determination of priorities in educational research. This section aims to find out the different ways in which national authorities stimulate (directly or indirectly) research projects undertaken in different kinds of research organizations and orient them towards established priorities for enquiry.

The Secretariat would be grateful if you could develop and comment upon the following points:

B.1. If there is a central mechanism (mechanisms) for research in education, please describe its basic role and functions with respect to:
  a) identifying research needs and priorities;
  b) co-ordinating research activities;
  c) funding research projects.
B.2 Are there any mechanisms to review and/or to assess educational research or to measure its impact? Please give some examples.
B.3. Are there any measures under consideration to promote a national educational research policy?

B.4. Are there priority fields for educational research that have recently been promoted or will be promoted in the near future? What has been done or will be done to promote these priority fields?

B.5. Have there been any liaison or modalities or co-operation established between research institutions (or researchers) and:
- a) decision-makers (policy-makers, educational planners);
- b) educational practitioners (administrators, teachers, parents, community members, etc.);
- c) other governmental (besides ministry of education) and non-governmental agencies.

Please give some examples.

B.6. Any other comments on this section.

(C) Dissemination and utilization of research findings

This section deals with the ways of disseminating research findings and strategies for promoting their use. Problems arise as research workers, decision-makers and educators form communities which differ in varying degrees as regards their views on contemporary society and, in particular, on the future of education and desirable changes. Too often, there is a gap between these categories of people who seem to have problems in communicting with each other. There is also a time-lag between the attainment of a research result and its dissemination and utilization.

Intermediary bodies can contribute to bridging this gap by ensuring two-way communication between researchers and users of different kinds. Such intermediaries can be specialized services, libraries, media, inspectors, experimental or pilot projects, etc. It would be important to gain better knowledge on the interaction between educational research and educational development processes.

The Secretariat would be grateful if you would develop and comment upon the following points.

C.1. Are there any systems (like networks) or agencies for disseminating research findings or information at a national (or local) level?

C.2. Is there an inventory (inventories) of priority research projects in education? If so, could you provide us with a copy?

C.3. Various categories of users might be concerned with research findings in education. Researchers themselves, policy-makers and planners, educators and teachers, general public with different needs and initiative (parents, family, women's associations, professional unions, etc.).

Please specify main ways or forms of disseminating research findings to those various categories of users.
- a) publications
  - research journals (please give main titles);
  - others: reports, survey, etc. (please specify).
- b) conferences and colloquia (please mention some recent ones).
- c) media - Are research findings popularized through media (e.g. newspapers, RTV programmes, magazines for teachers and parents)? - If so, give some examples.
- d) Are there libraries or resource centres to facilitate access to research findings?

C.4. Are teachers involved in research activities? If so, in what way?

C.5. Have measures been taken to promote utilization of research findings among teaching personnel? In this respect what is the role of principals (or headmasters), educational advisers, inspectors and supervising personnel?

C.6. Have there been any specific measures or strategies taken in order to promote a greater impact of educational research information and findings on educational research change and educational planning? Have specific measures for assessing the impact of innovations been based upon research findings (for instance experiments or pilot projects)?

C.7. Any other comments in this section.